

THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. LIII.

SATURDAY, SEPTEMBER 29, 1888.

No. 13.

AMERICAN CLIMATOLOGICAL ASSOCIATION.

THE PRESIDENT'S ADDRESS.

Delivered September 18, 1888.

THE CLIMATE AND ENVIRONMENT BEST SUITED TO OLD AGE IN HEALTH AND DISEASE.

BY A. L. LOOMIS, M.D.,

PROFESSOR OF THE PRINCIPLES AND PRACTICE OF MEDICINE IN THE
UNIVERSITY OF THE CITY OF NEW YORK.

AGAIN the pleasant duty devolves upon me of welcoming you to an Annual Meeting of the American Climatological Association. Our fifth anniversary finds us a strong, well-organized, working body. Our records for the past four years show much good work done, and the programme for our present meeting is a guarantee for the future.

Three years ago, under similar circumstances, it was my privilege to say that this Association was organized that representative medical men from different sections might come together and, from their combined views and experiences, endeavor to determine the therapeutic value of the various localities which were claimed to have the power of arresting or curing chronic diseases of the respiratory and vascular organs; and I then expressed the hope that in the near future it would be a place where good workers could meet on a common ground with no medical politics or ethics (except such as one scientific worker is always willing to accord to his fellows), and there discuss in a scientific spirit those questions in etiology and therapeutics which are now engaging so largely the mind of the profession.

My hopes and prophecies have been more than realized, for our Association has not only made a scientific record for itself, but it has stimulated the profession in this country to harmonious work in the important field which we occupy, and has given such a prominence to climatology and hydrology in this country that our springs and health resorts are being placed on a more intelligent and scientific basis, so that English and French physicians are already sending their phthisical and rheumatic patients to those American resorts which have received the sanction of this Association.

The fact that the subjects for investigation and experimentation, as well as the clinical studies which come within the scope of our labors, are becoming more and more important each year, and in all parts of the world are engaging the attention of some of our best medical workers, should stimulate this Association to a still higher standard of work.

With these few words of congratulation as an introduction to that which is before us, I will invite your attention to some thoughts connected with the climatology of age.

In studying the therapeutics of climate, and its effects

upon diseased processes, one soon realizes that *age* is a factor which enters very largely into the climatic problems which we are endeavoring to solve—much has been written on the climates best suited to the management of different diseases, but the literature of *the climate and environment best suited to old age in health and disease* is meagre and conflicting. I have thought that it might not be without interest, if I should at this time give you some of the results of my experience and observations on this subject.

The life of man is naturally divided into four periods—infancy, youth, manhood, and old age; each period has its mental and physical characteristics, each its diseases, and each its therapeutics. There are conditions of environment and climate which not only are especially adapted to the development and vigor of each, but which influence largely the immunity from those diseases liable to occur at these different periods, often arresting or curing them after their development.

Most men begin to show signs of decay between fifty and fifty-five, while the favored few retain the vigor of manhood at seventy. Original conformations, heredity, habits of life, climate, anxieties, and temperament, unquestionably influence very greatly the commencing period of old age. Some men are old at forty, while others are young at seventy.

There are certain physiological and anatomical characteristics of old age, which especially interest us in the study of those conditions which are best suited to the fuller development and prolongation of life. The more prominent of these are: defective secretions and excretions, imperfect metabolism, feeble respiration, which interfere with complete oxidation, the excretory organs being more or less weakened withdraw from the body less perfectly the results of tissue metamorphosed. The nutritive functions, digestion and assimilation, are imperfectly performed. The arterial changes give a febleness to cell nutrition which shows itself in the visible signs of advancing age. "The bones, the cartilages, the membranes, the flesh, the skin, and every fibre of the body becomes more solid and dry." But long after the decay of corporeal vigor, the understanding and the higher powers of the mind preserve their energy and precision.

It has been said that no sooner does man arrive at his full maturity than he begins to decline. This may be true of his animal life, but not of his intellectual. It does not seem consistent with the design of the Creator that all growth in man should cease with the attainment of his maturity. It is evident that his intellectual powers do not attain their highest development with the completion of his body growth; for we often find that those qualities by which "he rules the world, as reason and judgment," are most active after his body decline has begun. Some of the most brilliant and powerful productions in literature, science, and art have been the work of old age. Disraeli claims that the age of three score and ten is a most powerful one for writing.

There have been many striking examples, which prove how often the mind resists the body decay, and that the age of the physical organism does not necessarily enfeeble the mental powers. We can but believe that an intelligent care of the body, after it has reached its period of maturity with healthful exercise of the mental faculties, would make old age, not a period of decline, but a period of mental power and vigor. One has said "that among men of genius there is no old age." I would, therefore, make as strong requisites in the conditions which shall prolong and render healthful old age, a climate and environment which shall favor and tend to stimulate the mental activities.

To one studying the physiology of old age, it becomes apparent that the gradual and progressive impairment of the functions of organic life and the anatomical changes which precede or accompany their failing activity, can only be retarded by furnishing "to each organ, or each system of organs, their appropriate and natural stimulus without undue excitement or depression." There is unquestionably a hygiene of old age, which, if carefully studied and intelligently observed, would prolong its physical vigor and mental power. I have the opportunity of daily watching and studying one who has reached the ninety-fifth year; all her physical and mental powers retain their activity, her pulse has the characteristics of youth, her skin is as fair and soft as that of a girl of eighteen; in fact, the changes of old age, as usually met with in persons from seventy to eighty, have not taken place in her. This case, as well as others of great age that have come under my observation, have taught me that the absence of senile changes is the chief reason of their attaining their age, and have convinced me that if the hygienic laws of age were more carefully studied and observed, not only would greater age be reached but they would be far more vigorous and useful.

I believe that the progressive degenerative changes in structure and failure in functional activities may so adapt themselves to each other as to produce an old age which may be as healthy as mature life. One of the most important of these hygienic laws is that the brain shall be stimulated by a pleasurable employment of its faculties, care being taken that it shall not be enfeebled by prolonged and continuous labor, this, together with healthful exercise, has a salutary influence on the entire system, while idleness and listlessness lead to senile atrophy of both mind and body. It is most essential also that the diet shall be simple and nutritious, as moderation in eating and drinking is indicated by the diminished capacity of the stomach, its reduced muscular power, and its declining nervous energy. So long as it can be accomplished without fatigue, exercise in the open air is another condition which promotes longevity, for it is evident that the perfect performance of respiration is stimulated by moderate exercise in a pure atmosphere and insures the highest state of oxidation, which is important to the healthful nutrition of the aged.

There is perhaps nothing that has a more prejudicial effect upon the aged than cold; their greatly diminished power of generating heat and of preserving it, renders it necessary for their greater activity that they should live in a more equable climate, in localities that are sheltered from the north and east winds. Dr. Farr, in the *Third Annual Report of the Registrar-General of England*, states "that the rate of mortality rises in the aged, as the

mean temperature falls. When the mean temperature of day and night falls a degree or two below 32° F., the rate of mortality immediately rises, and the effects of the low temperature go on accumulating and continue to be felt for thirty or forty days after the extremes of cold have been passed. I have noticed that the extremes of heat seem to be as hurtful to the aged as extremes of cold, and should be equally avoided."

Another essential to healthy old age is personal cleanliness. The skin which becomes unfitted for carrying off effete matters from the system, should have its activities stimulated by frequent warm alkaline baths followed by frictions to the surface.

The ancients showed great familiarity with the principles of hygiene of old age. Cicero in his "Senectute" says that we must make a stand against old age and its faults must be atoned for by activity. We must fight against disease, and in like manner against old age. Regard must be paid to everything healthful. Moderate exercise must be adopted, so much of meat and drink must be taken, that the strength may be recruited and not oppressed. Nor, indeed, must the body alone be supported, but the mind and soul much more, for unless we drop oil on them as a lamp they are extinguished by old age. Our bodies, indeed, by weariness and exercise, become oppressed, but our minds are rendered buoyant by exercise.

With these thoughts before us in seeking climates and environments suited to the development and prolongation of old age, we naturally reach the following conclusions:

First. That healthy old age thrives best and is most vigorous when it can be passed in moderately warm climates. To accomplish this, a change of residence once or twice a year becomes a necessity. For some reason which I am sure is not based on experience or observation, it has come to be a common belief that old people should pass their last days in one locality, that they are so wedded to their homes and surroundings that any change affects them unfavorably; so prevalent is this opinion, even among medical men, that the usual professional advice is, that it is better that the aged should be made comfortable in their own homes however anti-hygienic they may be, than that they should change their residences as the seasons change. This, I am confident, is a very great mistake. I have found that old people not only bear changes well, but if such changes are judiciously made, they are not only invigorated by them, but that change of air and scene stimulates them to greater mental vigor and physical power. It is an established fact that change gives fresh impulse to mature life, and my experience teaches me that the same holds good with the aged.

Second. The localities best suited to the development of healthy old age are those which invite to an out-of-door life with surroundings and associations such as shall stimulate to mental and physical activity free from excitement, for it is to be remembered that the aged live more within themselves and are consequently annoyed and fatigued by excitement.

An old man that has the spirit of a Walton within him, who can spend most of his hours from sunrise to sunset with his rod in a pure air, grows strong and young, he hardly knows how or why. Paint to yourself the picture of such a one by some quiet stream angling for the

wary trout, there is nothing to disturb his mental poise, and the pleasurable excitement of the educated and enthusiastic fisherman is a stimulus to his mental and physical vigor, such as cannot be found elsewhere in the wide world. The botanist may find his new life in the flowers and plants that are not familiar to him in his old haunts. Or an Agassiz may find his inspiration as he revels in a new world of marine life.

Third. The localities suited to healthful development of age must furnish an abundance and variety of well-cooked food, the comforts and, if possible, the luxuries of life must be within easy reach, for if there is any one period of life more than another in which comforts and luxuries are essential to its healthfulness, it is that of old age. For what ought men in their activities to strive for more than comfortable sunset? As I have already stated, the food of the aged must be simple and nutritious, and, above all, well cooked. If you send a toothless old man to a second-rate hotel, even in the garden of Eden, his muscles will grow more flabby, his step more tottering; his mind will fail to be stimulated by the glories of nature which surround him, and he will languish and die for the good table and comfortable bed which he has left in his own home.

These, gentlemen, are a few of the conditions of environments which are necessary to the development of a healthy and vigorous old age, and it seems to me in this period of progress, it is not unworthy of scientific workers in our profession to study and make themselves familiar with those conditions and requests which shall tend to give us more vigorous and useful aged ones, and the few that astonish us by their mental power and ability to do good work long after the period of maturity has been passed, shall become the many.

As maturity passes almost insensibly into the period of decline, so the diseases of the early period of old age resemble very closely those of maturity. Dyspepsia, arthritic affections, and renal diseases, are then frequent. Later, obstruction to the venous circulation and the rigidity of the arteries, lead to local hyperæmia and extravasation, which cause all inflammatory diseases to assume a subacute or chronic type, so that in estimating the therapeutic value of climate and environment in senile diseases, we are led to consider them from two standpoints:

First. Those diseases which may occur during other periods of life, but when they occur during the period of senility, present special characteristics.

Second. Those diseases which arise partially or entirely from changes in the economy which has taken place as the result of age.

In the last class may be included those structural changes which sooner or later reach such a point of development that the physiological and pathological states become blinded by an imperceptible transition, and can no longer be sharply distinguished. It is simply a process of atrophy, the cellular elements of the parenchyma, the muscular and, perhaps, the nervous elements, progressively diminish in volume, but without presenting any essential modifications in structure. The connective tissue, however, does not participate in the same degree in this mode of slow destruction. It often predominates over the other tissue elements. During the period in which these changes are taking place, the body is especially susceptible to influences which lead to the develop-

ment of diseases which are characteristic of this period of life, and which largely depend on the defective nutrition of the tissue elements.

That all chronic pulmonary diseases in the aged are greatly influenced by atmospheric conditions is taught by every day's experience. There are, however, certain anatomical and physiological differences in the respiratory organs of the aged which must be considered in determining the locality to which we will send the old man with bronchitis, emphysema, or phthisis. The rarefied condition of their lungs, the dilatation and diminished elasticity of their air-cells, and the obstruction of a large number of their pulmonary capillary vessels, accompanied, as it is, with the diffusion of the carbonaceous matter throughout their substance, modify very greatly the pathological changes which occur in them; besides, as years multiply, the volume of the vital capacity diminishes at the rate of one and a half cubic inches with each year, and the frequency, as well as depth and force, of the respiratory acts much less than in middle life, causing a greater preponderance of venous blood in the lungs than at any other period. It is evident that, on account of these changes, the climatic conditions and environment which would act therapeutically in pulmonary disease in the young, would not be suited to the aged—certainly, from a physiological standpoint, the rarefied atmosphere of high altitudes is not suited to the aged suffering with pulmonary diseases; too dense an atmosphere is equally injurious, nor do their cardiac and vascular conditions allow such changes to be safely made.

It is never safe for an aged person with chronic bronchial catarrh to pass quickly from a very dry to a very moist atmosphere. My clinical experience has given me many examples of the injurious effects of such changes in this class of cases, as well as the ill effects of high altitudes on the vascular system of the aged. The localities which I have found best suited to old persons suffering with chronic bronchial catarrh and pulmonary emphysema, from December to April, is Nassau, the Bermudas, and Monterey. In July and August they do well at Shelter Island, and at Newport or Cape May; all of this class of cases that I have sent to the mountains have done badly, except a few that were complicated by hereditary asthma of long standing.

The phthisis of *old age* is generally of the fibroid variety, slow in its development, and never entirely recovered from; but its progress may be delayed and its distressing symptoms very much alleviated by an out-door life in a warm, moderately dry atmosphere. The locality of all others in which this class has been the most benefited during the winter months is on the Gulf coast of Florida. During the early spring, Thomasville, Ga., and Aiken, S. C., are places at which they can spend two or three months with benefit on their way north for the summer. During the summer months I have found that the seacoast off Cape Cod and Narragansett furnishes atmospheric and hygienic conditions which are especially adapted to a large class of old persons suffering with phthisis. I have frequently found that, after a summer spent in these regions, the activity of the phthisical processes was arrested, and that often those in whom the disease was quite far advanced make a remarkable gain in flesh and strength.

I have one patient, a gentleman now seventy-six, who

has been under my observation for nine years with advanced phthisis, who had three homes—one in Orange County, Florida, one in Columbus, South Carolina, and one in Newport, Rhode Island; he divides the year between them spending his winters in Florida, his springs in Columbus, and his summers in Newport, and maintains a fair degree of strength and vigor; but for these changes, and the great care which he exercises in diet and an out-of-door life he long since must have succumbed to his disease.

In connection with the climatic treatment of the pulmonary diseases of the aged, I wish to say a word in regard to change of climate as a prophylaxis against their development. Physicians, as well as patients, are too apt to think only of the diseases that already exist, and lose sight of those which may threaten. While we are usually consulted for the relief of present difficulties, and not as to how possible ills may be averted, still in our capacity, as guardians of health, it seems to me that the time has come when we should impress upon the public mind the importance of prophylaxis, and teach those under our immediate supervision that after sixty a failure to recognize the changed condition of their vital powers, and a continuance in the business habits of earlier life, after this period, are often no better than suicide.

Not a winter passes that I do not see cases exemplifying this point. When one who in early life has suffered from repeated attacks of severe bronchitis, or, it may be, has passed safely through a pneumonia or pleurisy or barely escaped a phthisis, finds himself in sight of three score and ten, he should be taught that, from a business as well as a physiological standpoint, he should so arrange his affairs as to avoid those months in our northern climate in which pneumonia and other acute pulmonary affections have their harvest among the aged.

During the past winter one of the most important and influential men in the business circles of New York, who barely escaped phthisis as a young man, was warned by his physician that at sixty-five he could not safely risk the vigor of a northern winter, and was urged to spend it on an island in the South where he owned a beautiful residence, but he plead the importance of a new business venture, which one of forty ought not to have undertaken single handed, and laughed at the warning. In February after a hard day's work, he became chilled on his way home, and in three days added another to the list of business suicides.

In a country like ours, which offers so many delightful winter homes which are closely connected with our great business centres, there is no excuse for men of means neglecting these provisions of common prudence.

Physicians who have passed sixty years, especially if their previous history indicates a strong liability to pulmonary disease, ought also to remember that a doctor above ground can accomplish more in nine months of the year than he can below in twelve.

Very few old persons escape arthritic disease in one or other of its many forms. Charcot says that "rheumatism and gout are 'par excellence' the diseases of old age, and that the pain and inconveniences which they occasion interfere very greatly with their activities, and thus tend to shorten the duration of life." There is, perhaps, no class of diseases which are more markedly influenced by atmospheric conditions. It is by his gouty twinges that the old man so accurately predicts the

coming storm, and the question is constantly coming to us from the aged sufferers, Where shall I go to escape my rheumatism? Certainly they must avoid cold, damp sea-places, as well as the mountains. I would advise that they should spend the winter months below the frost line in Florida, or in Southern California. I have yet to send an old person with gout or rheumatism to either of these localities to spend the winter who has not been benefited by the change. So soon as the comforts and luxuries of life can be obtained by invalids in these regions, I am quite sure they will become the winter homes of the old who are the subjects of arthritic diseases; chronic vesical catarrhs, independent or connected with prostatic enlargement, so common in the aged, is as much influenced by atmospheric conditions as are bronchial catarrhs, and occurring as they do in gouty or rheumatic subjects, usually obtain benefit in the same localities that are suited to arthritic subjects.

This class of cases, however, are exceedingly obstinate; if there is anything that shows more clearly than another their intractable nature, it is the long list of remedies which have been employed in their treatment.

I have long since abandoned the local measures usually resorted to in their management and have relied almost exclusively upon diet and climate. My experience has shown that they are always aggravated in damp, cold localities, especially those that are subject to sudden and extreme atmospheric changes, while they are greatly improved and sometimes entirely relieved by a residence in a warm sea climate.

I have found the Bermudas and Nassau best suited to this class of cases. I recall a very obstinate case of a gentleman seventy-two years of age, who had suffered constantly for four years with an aggravated form of chronic cystitis, and had been subjected to various plans of treatment, both local and constitutional, without relief, who entirely recovered after he had taken up his residence in Monterey.

The localities which I have named as best suited to the aged in health and disease, are those with which I am personally familiar; I have not referred to those outside the boundaries of our own country, for my experience has convinced me that it is seldom wise for an old person to take the risks of a long sea-voyage. There are undoubtedly many other localities equally as desirable as those which I have named, but my personal experience is not sufficient for me to recommend them.

If the few suggestions which I have made shall have so interested the members of this Association, that a more careful and extended study of the hygiene, and a more intelligent care of the aged in health and disease, shall gain a more prominent place in the work of our profession, I shall be satisfied and feel that I have added my mite to the relief and prolongation of the most interesting period of human life.

ORIGINAL ARTICLES.

"AINHUM,"

With Case and Remarks.

BY R. H. DAY, M.D.,
OF BATON ROUGE, LA., EX-PRESIDENT OF THE LOUISIANA STATE MEDICAL SOCIETY.

IT is a somewhat remarkable coincidence, that Dr. Shepherd and I should have operated for the

relief of this rare disease in the same year and the same month ; he, in Montreal, on the 14th of May, 1886, and I, in Baton Rouge, Louisiana, on the 8th of May, 1886.

I infer from Dr. Shepherd's report of his case (*American Journal of the Medical Sciences*, January, 1887, p. 137), that it was the first he had seen. Mine was the first I had seen ; and, in truth, I was perfectly at sea as to its name or nature, for in all my experience or reading I could not recall any affection bearing the slightest resemblance to it, or affording any light upon the subject.

Dr. Shepherd has given us a very interesting and full account of all that is known of this singular disease. The name "ainhum" is a most unfortunate and inappropriate one, from the fact that it expresses no one feature of the affection. According to Dr. Shepherd, it is simply the "negro name" for this disease ; but whether of any linguistic origin or a negro vulgarity we are not informed.

My case first came under my notice in the early part of 1885. The subject, a colored woman (Sylvia J.), was born in August, 1824, in the Parish of East Baton Rouge, Louisiana. Has always been healthy and well nourished ; and of healthy parentage, so far as can be learned from her statements. I was first called to see her on account of the excruciating pain she was suffering, which I found to be located in the little toe of the right foot. The appearance of the toe was peculiar and striking. The extremity of the toe was much larger than normal, and of a blunt, ovoid, or club shape, with a deep fissure in the second phalangeal space, immediately behind the first articulation, with considerable enlargement of the toe behind the stricture, involving the metatarso-phalangeal joint and the dorsum of the foot. On the upper and outer aspect, near the first joint, there was a dry eschar, like a condensed corn. There was no open ulcer or abrasion of the skin on any portion of the toe ; and the deep fissure looked exactly as though it had been purposely brought about by the continuous constriction of a tightly drawn elastic cord ; so much so, that I questioned and cross-questioned the patient closely in that direction, before my mind could be disabused of the strong suspicion that such had been the cause of the trouble. The strictured pedicle was small and felt destitute of bone, as if composed of tendons and condensed tissue only, as the toe could be rotated and deflected at any angle without trouble, but with excruciating pain.

The patient states that in 1881, early one morning, after a short walk, she experienced an itching, burning sensation in her right foot, and that upon inspection she noticed upon the little toe a small point or vesicle, as of the bite or sting of some insect. Her foot and leg became inflamed and swollen, which she relieved by bathing and poulticing ; but the toe from that time on, she says, was a source of trouble and very painful, at times much more intense and aggravated.

She tells me (for I have recently questioned her)

that previous to my first visit to her, a negro doctor had been called to see her, and that he clipped off the end of her toe, which, no doubt, accounts for its club-like extremity.

The history of this case is given as derived from the patient, and although a woman of the average intelligence of her race, such is the superstitious nature of the negro, and his proneness to magnify his ailments and sufferings, that it is almost a matter of impossibility to obtain a clear and intelligent history. Hence in this case, the origin of the disease, its progress and history, are all more or less obscure and unsatisfactory, and but little light is shed upon its origin.

That the disease is obscure in origin and slow in its progress, seem to be pretty well established by the few cases that have been reported ; and also it is demonstrated to be peculiar to the African or dark raced people. That it is also a disease of rare occurrence seems to be fairly well made out ; and yet it is a question if this characteristic feature may not be owing, in a great measure, to its limitation to the negro race, and to its slow and non-fatal tendency. Although I had been in regular practice fifty-two years before I saw my first case, I have since seen one other.

Dr. J. L. Deslattes, of St. James Parish, La., has seen four cases. He writes me as follows :

"While I was practising in St. Johns I saw two cases occurring in old negroes.

"About ten years ago there was an old negro in the Longview settlement, who gave a pretty clear history of his case. The toe, when seen by me, seemed to have suffered from a slow molecular necrosis. This necrosis had begun on the inside of the toe and had gradually reached the bone. The bone itself had become denuded of periosteum, was somewhat loose and perfectly detached. The probe introduced into this cavity went way beyond the bone to the skin on the opposite side. A very slight discharge came from this cavity. There seemed to be very little or no pain. The disease was slow in its progress. This old man begged me to cut off his toe. Some two or three months afterward, on inquiring about him, I was told that he had amputated his toe himself with a hatchet a few days after he had seen me.

"There is now in that neighborhood, a man who, I am told, has amputated his toe himself for the relief of the same trouble."

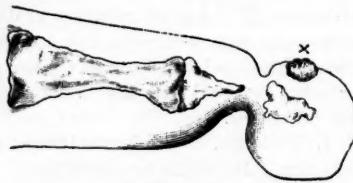
There appears to be no heredity in connection with this affection ; and, as far as we can judge, it is strictly local in character, the general system, in the subjects affected, remaining well nourished, robust and unimpaired in health, during the protracted and painful progress of the local disease. Its real pathological and essential lesion seems to be necrosis of the phalanges of the toe, with limited circumscribed stricture of the superimposed tissues. What

causes, specific or general, can so alter or modify the nutrition of the parts, as to produce this decay and death of the phalanges and circular constriction of the soft tissues, must be a matter of mere speculation, and so remain until more extended observation and research shall develop facts sufficient to disperse the darkness that now enshrouds the subject.

The theory of Dr. Shepherd, that the disease is of "nervous origin," and is due to some "trophic disturbance of the nerve centres," is very probable.

As already stated, I operated on my case on the 8th of May, 1886, amputating the toe at its metatarso-phalangeal articulation. The patient made a good recovery, and is still living and in good health, with no tendency, that can be discerned, to any further toe trouble.

In order to give a fair representation of the disease, and to make the description of it more intelligible, I have endeavored to present in the accompanying drawing the exact appearance of the toe, and also



Appearance of the toe. The shaded border on the inferior aspect shows an injected and purplish condition of the tissues in that locality, indicating a previous congested state of the tissues and capillaries. X indicates the position of the little eschar.

a *fac-simile* of the abnormal changes wrought in the phalangeal bones. It will be observed that there is a notable difference in the appearance of the toe and its phalanges in my case from that of Dr. Shepherd. This, however, is merely one variety in the form of the disease, or stage of development, and evidently evinces the essential morbid lesion in the two cases to be identically the same.

THE CONNECTION BETWEEN MASTURBATION AND STRICTURE OF THE URETHRA.¹

BY SAMUEL W. GROSS, M.D., LL.D.,
PROFESSOR OF THE PRINCIPLES OF SURGERY AND CLINICAL SURGERY IN
THE JEFFERSON MEDICAL COLLEGE.

ALTHOUGH masturbation had previously been recognized by several writers as a cause of organic stricture of the urethra, I was, if I do not mistake, the first to call prominent attention to that fact in the *Medical and Surgical Reporter*, May 5, 1877, and subsequently in the three editions of my brochure on *The Diseases of the Male Sexual Organs*. It is my present purpose, through the medium of this body, in a very few words, to direct the attention

of the general practitioner to the very common occurrence of stricture in masturbators, in order that he may search for a factor in maintaining the disorders, both local and general, to which these persons are subject.

In the second edition of my brochure the statement will be found that, of 173 masturbators, one or more strictures were detected in 151, or 87 per cent. Since the appearance of that edition, I have had 157 additional cases, and find that, out of a total of 331, strictures were present in 291, or 88 per cent. The last 157 cases were carefully examined as to the calibre, number, and seat of the coarctations, and my remarks will be confined to these cases alone. In order that there may be no doubt as to the accuracy of the observations, it should be stated, first, that the examinations were conducted with the soft acorn-headed bougie upon patients who had never suffered from gonorrhœa and many of whom had never had sexual intercourse; and, secondly, that when, in addition to a stricture at or near the meatus, other coarctations were discovered, the final diagnosis of the more deeply seated ones was made only after the division of the stricture at the orifice.

Of the 157 cases, one or more strictures were present in 140, or 89.18 per cent., and absent in 17, or 10.82 per cent. In 19.3 per cent. the calibre was below 21 of the French scale—the smallest having measured fourteen millimetres in circumference; 22.6 per cent. ranged between 21 and 24; 51.5 per cent. between 25 and 27; and 6.5 per cent. between 28 and 31 millimetres.

Of the 140 examples of stricture, there was one in 82, or 58.57 per cent.; two were found in 41, or 29.29 per cent., and from three to six were present in 17, or 12.14 per cent. Of the 82 solitary strictures, 65 were seated at or near the meatus; 4 in the spongy portion of the urethra; and 13 in the bulbous division. Of the 41 examples of two coarctations, 31 were found at the meatus and bulb; 4 at the meatus and spongy urethra; and 6 in the spongy and bulbous portions. Of the 7 cases of three strictures, in 5 they were located at the meatus, in the spongy, and in the bulbous divisions, and in 2 there was a single coarctation at the meatus, and two in the pendulous urethra. Of the 7 instances of four strictures, there were one at the orifice, two in the pendulous portion, and one in the bulb in 2; one at the meatus and three in the pendulous portion in 2; and three in the pendulous urethra and one in the bulb in 3. Of the two examples of five coarctations, there were one at the meatus, two in the pendulous urethra, and two in the bulb in 1; and one at the orifice, three in the pendulous portion, and one in the bulb in 1. In the single case of six strictures, five were found in the spongy urethra and one in the bulb.

An interesting fact, deducible from a study of the preceding measurements, is that in not less than 113,

¹ Read at the meeting of the American Association of Genito-Urinary Surgeons, Washington, September 18, 1888.

or 80.71 per cent., of the 140 cases, was a stricture found within one-third of an inch of the orifice. It, moreover, appears that when there was only one coarctation it was seated near the orifice in 79.26 per cent. of all cases; while, when there was more than a single stricture, one was present near the meatus in 82.75 per cent. of all examples.

In conclusion, it may be affirmed that, as a result of my personal observations, urethral stricture may be looked for in nearly nine-tenths of all masturbators who have never had gonorrhœa, and that, as a rule, the stricture will be found to be of large calibre, single, and seated near the meatus.

MEDICAL PROGRESS.

Ether in Heart Failure.—Two years ago BAMBERGER (*Wiener klinische Wochenschrift*) had under his care a man, aged sixty, who was suffering from severe insufficiency of the heart depending on fatty degeneration, and most probably also from sclerosis of the coronary arteries, but without cardiac failure. The other symptoms present were considerable dropsy, albuminuria, swelling of the liver, severe dyspnoea and continual sleeplessness. The patient had enjoyed perfectly good health until recently, but owing to overwork and irregularity of life the action of his heart became impaired. As the ordinary remedies were of no use or were only temporarily beneficial, the patient was directed to undergo the Oertel "cure" in the mountains. The symptoms, however, and particularly the dyspnoea, increased to such a degree before the treatment commenced that the attending physician, becoming anxious about the case, had recourse to injections of ether with a Pravaz's syringe. This had a really surprising effect, as immediately after the injections the secretion of urine, which could not be augmented by any means before, increased to several thousands of cubic centimetres a day, and continued to be so for some time longer without any other remedy being used; the dropsy and the dyspnoea also simultaneously decreased. In this ameliorated condition the patient was able to undergo the Oertel treatment, at Reichenau, where his health made further progress. In the spring of the following year, the patient was seized with an apoplectic attack—probably of embolic origin—with hemiplegia of the left side; contracture of the left arm remained behind. Later on symptoms of dropsy again showed themselves, for this the treatment with calomel proved very useful, as the excretion of urine rose to 6000 cubic centimetres a day; the vital powers of the patient, however, decreased more and more, and death supervened. With regard to the surprising effect of the ether, Professor v. Bamberger says that two possibilities had to be taken into account, namely, either the effect on the heart itself, which stimulated the weakened organ to a last successful effort, and thus overcame the congestion in the renal bloodvessels, or there was a direct influence on the excretory apparatus of the kidneys. From the fact that calomel had a similar effect, which could only be explained on the latter of these two hypotheses, Professor v. Bamberger considered that the direct influence on the secreting apparatus was, in all probability, the correct explanation.—*British Medical Journal*, September 1, 1888.

Convulsions in Children Caused by Opium.—ROTH (*Bulletin Médical*) has confirmed the fact that opium, even in small doses, causes, in infants, convulsions, which may be fatal. The dose may even induce convulsions in the fetus, of which Roth cites a case. A pregnant woman who had taken large doses of opium observed, shortly after ingestion, violent, almost unendurable foetal movements. The author therefore considers irrational the use of opium to prevent abortion.—*Deutsche medizin. Wochenschr.*, August 2.

Experimental Sinus Thrombosis.—FERRARI thus summarizes the results of fourteen experiments upon dogs with artificial plugging of the venous sinuses of the dura mater:

1. Thrombosis of a sinus of the dura mater occasions no obstruction of the circulation in the related cerebral area and gives rise to no more profound anatomical changes.

2. A large portion of the sinus passages may become impervious, e.g., all the sinuses of the vertex, without disturbance of the cerebral function. Simple, though extensive, sinus thrombosis in dogs occasions no symptoms whatsoever.

3. Obstruction of all the sources of exit of blood from the cranium is rapidly fatal, death being usually preceded by an epileptic attack.

That the results attained in dogs are applicable to man cannot be determined. The analogy of the cranial venous symptoms makes such a view plausible. Clinical observation does not contradict it. Repeatedly at autopsies have thromboses been accidentally found which gave rise to no symptoms. Such conditions may often arise and be overlooked, because of the recovery of the patient. The severe symptoms of thrombosis are the result rather of the complications than of the constriction of the sinus.—*Medizin. Jahrbücher*, Heft 3, 1888.

Kidney-bean in Renal Troubles.—It is stated that a wine-glassful of an infusion made from the dried leaves of the kidney-bean, has remarkable effects in quieting the pains of nephritic colic. M. BOULOUIMIS has used it with favorable results in several cases; in one of which, renal calculi accompanied the spasm; in another case, of urethral pains, the patient was afflicted with chronic cystitis and enlarged prostate.—*Revue de Thérapeutique*, September, 1888.

Oxyuris Vermicularis.—The following mixture is said to be highly efficient:

R.—Tinct. rhei	gtt. iii.
Tinct. zingiberis	gtt. ii.
Magnesii carbonatis	3 iv.
Aquaæ	3 iii.—M.

This amount to be given three or four times daily, according to the effect produced.

The rhubarb may act as a vermicide or as an agent which simply detaches the worms. In either event it causes the expulsion of great numbers of them and induces regular bowel movement.

Sterilized Milk in the Digestive Disorders of Children.—PENZOLDT, before the local medical society of Erlangen, stated that the excellent results from the nourishment of

healthy children, during the first months of life, exclusively with milk sterilized according to the method of Soxhlet, induced him to introduce the method into the institution for nursing children. As sterilized milk was not the exclusive source of nourishment, but was given only by day, some other and less appropriate form of nourishment being given during the evening and morning, the result from the outset naturally seemed uncertain. Nevertheless, it really proved surprisingly successful. The number of cases of diarrhoea, from careful records of the matron, was extraordinarily diminished after the innovation. This result encouraged him to use sterilized milk in the dietetic treatment of existing gastric disorders. It is well known that when such conditions arise it is useful to withdraw the milk, particularly ordinary cow's milk for a time, and replace it by demulcent fluids. The latter, however, are not sufficiently nutritious for long periods of time. The possibility of continuing the use of milk during the course of dyspepsias would be most desirable from a nutritive point of view. For more than a year, all cases of chronic dyspepsia in infants at the polyclinic were treated with milk sterilized by the Soxhlet method, partly without and partly with simultaneous medicinal therapeutics. The milk was prepared by the matron. The doctor ordered the quantity to be given by the parents. That the necessary care in administration was not always observed, and that other nourishment was given in addition, were unfortunately unavoidable evils, resulting from the ignorance of the parents. The practical outcome, however, may be better understood from the studies of the assistants at the polyclinic, Drs. Haas and Grätz, of a large variety of cases, with modifications of the treatment. They have come to these conclusions: In the chronic dyspepsia of infants the exclusive use of sterilized milk affords none or but slow improvement; if, however, the treatment is begun with an efficient calomel purge, milk entirely withdrawn for a few days, and then milk sterilized by Soxhlet's method given, the result is frequently favorable and relapses occur less readily. The explanation is evident. If, in the course of a dyspepsia, milk, sterilized, but still capable of fermentation, is introduced into the intestinal canal, the contents of which are in a state of abnormal fermentation, the fermentative processes will continue. If the fermenting mass is diminished and disinfected by means of calomel, renewed abnormal fermentation may then be avoided by the ingestion of sterilized milk. Thus the Soxhlet process becomes an important prophylactic measure in the case of dyspeptic children as well as in the nourishment of healthy children.—*Münchener medicin. Wochenschr.*, August 21, 1888.

Erythrophlein in Cardiac Trouble.—The action of erythrophlein has been carefully studied in the clinic of DRASCHE, in Vienna (*Wiener klinische Wochenschrift*). It was used in cases of compensated and non-compensated failures of the heart, as well as in cases of fatty heart with slight disturbances of circulation. The drug was used in a solution of 0.002 grammes of erythrophlein in 10 grammes of cherry laurel water, ten drops of this solution being given every hour. In general, the drug was well tolerated, and only in a case of insufficiency of the aorta depending on acute articular rheumatism did the sensation of disgust and great irritation supervene.

Retardation of the pulse after the administration of erythrophlein came on in several cases, and this was particularly true of the case of insufficiency of the aorta after 150 drops of the solution had been given for eight days. The number of the pulse-beats was reduced from 100 to 84 a minute, and in another case of insufficiency and stenosis of the mitral valve, the pulsations decreased from 100 to 68 a minute after the administration of 50 drops of the solution, and during an interval of time of from midday till 5 P.M. This, however, was not constant, as in the last-mentioned case the number of the pulsations reached 108 a minute three hours later, although the administration of the solution was continued.

In another case of insufficiency of the mitral valve with severe palpitations, the drug was administered for twelve days, and it was not until some days later that the frequency of the pulsations sank from 120 to 96 in a minute, and at the conclusion of the experiment it decreased to about 84 beats. As to the effect of the erythrophlein on the renal function no particular influence could be observed in some cases, whereas in another series of cases the effect was quite striking. In a patient affected with incompetence of the mitral valve the daily quantity of urine, during an interval of twelve days, increased from 800 to about 1500 cubic centimetres. In another case of slight fatty heart, in which, before the use of erythrophlein, the number of the pulsations was from 68 to 60 a minute, and the quantity of urine reached 700 cubic centimetres, the latter increased to 2150 cubic centimetres, while the pulse remained unchanged. The disturbance of respiration had also diminished. Erythrophlein had also a marked effect on the pupil. In a patient with incompetence of the mitral valve, persistent dilatation of the right pupil ensued on the sixth day after administration. In another case with insufficiency of the aortic valve, distinct dilatation of both pupils came on on the fifth day; this disappeared some days later when the administration of the drug was discontinued. Kaposi had also observed dilatation of both pupils in a case of poisoning from the subcutaneous injection of two centigrammes of erythrophlein.

For the sake of comparison, experiments were made with strophanthus. In cases in which erythrophlein exerted no particular influence on the frequency of the pulsations, the arrhythmia and the congestive symptoms, from 60 to 70 drops of the tincture of strophanthus with equal parts of laurel water were administered in the day. The difference was very striking, and the slight effect of the erythrophlein could not be compared with that of strophanthus. In one case, for instance, the frequency of the pulsations after the use of strophanthus soon fell from 112 to 72 a minute, and remained nearly at this rate. The arrhythmia had almost entirely disappeared, and the excretion of urine was augmented to a much higher degree than after the use of erythrophlein. Symptoms of poisoning with erythrophlein were observed on only two occasions. The results of the experiments with erythrophlein may be summarized as follows: The drug had a marked retarding influence on the pulse, but the effect was not lasting. This was also true of its diuretic influence. The drug was well borne, and might be tried in cases in which digitalis, strophanthus, and similar medicaments, were either not well tolerated or were contraindicated. Erythrophlein did not appear to have any cumulative effect.—*British Med. Journ.*, Sept. 1, 1888.

THE MEDICAL NEWS.

A WEEKLY JOURNAL
OF MEDICAL SCIENCE.

COMMUNICATIONS are invited from all parts of the world. Original articles contributed exclusively to THE MEDICAL NEWS will be liberally paid for upon publication. When necessary to elucidate the text, illustrations will be furnished without cost to the author. Editor's address, No. 1004 Walnut St., Philadelphia.

SUBSCRIPTION PRICE, INCLUDING POSTAGE,
PER ANNUM, IN ADVANCE \$5.00.
SINGLE COPIES 10 CENTS.

Subscriptions may begin at any date. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made, at the risk of the publishers, by forwarding in registered letters.

Address, LEA BROTHERS & CO.,
Nos. 706 & 708 SANSOM STREET,
PHILADELPHIA.

SATURDAY, SEPTEMBER 29, 1888.

WHAT SHOULD BE DONE TO ARREST THE YELLOW FEVER EPIDEMIC.

In our issue of last week we insisted that when an epidemic of yellow fever occurs in the United States, some one is responsible, inasmuch as the disease is nowhere endemic in this country, and, when introduced, its extension may be prevented by the efficient application of known sanitary measures.

We cannot at present discuss the question as to where this responsibility rests. Evidently not upon any single individual, but upon our imperfect system or want of system of sanitary defence, for which the responsibility rests with the Congress of the United States, and not with the leading sanitarians of the country, who have repeatedly asked for the enactment of legislation establishing a Central Health Bureau, with full powers and ample means to cope with this and other epidemic diseases, which do not respect State boundary lines; and upon the absence of well-organized and vigilant State and local health boards in the State first invaded.

Leaving, then, this question of responsibility, we ask, What can and should be done, in this emergency, to arrest the progress of the epidemic? The principles which should govern the action of those upon whom this task devolves do not differ from those which we indicated last week as essential for arresting the disease at the outset in one or more isolated foci; but the difficulty of the undertaking is enormously increased by the wide extension of the disease and the panic of the population in in-

vaded or threatened towns. Theoretically, the main reliance of these towns should be upon general sanitary police, by which the nidus in which the exotic germ is known to thrive is removed. But it is Utopian to expect that this condition of defence can be established upon short notice in towns without an efficient sanitary service, and in which, too often, the rudiments of sanitary science are unknown, or, if known, are utterly neglected. Clean up by all means, but do not imagine that street-sweeping and removal of garbage from back doors and vacant lots will prove a sufficient defence against this enemy, which domiciles itself in insanitary dwellings and appears to thrive luxuriantly in a filth-polluted soil. Our main reliance, then, must be upon isolation of the sick, disinfection, and depopulation of infected areas.

As a rule, it will be best in the interest of the community and of the sick, to care for the sick in the infected locality. Those, however, who fall sick at a distance from the point where they contracted the disease should at once be removed to a place where isolation and disinfection of excreta can be enforced, for they are likely to establish new centres of infection—not by communicating the disease directly to those in contact with them, but by sowing germs which, under favorable circumstances, multiply external to the human body, as is the case in cholera and typhoid fever.

But when an infected centre is developed in any locality, as shown by the occurrence of cases of local origin, the rule should be to remove all unprotected persons from the infected area unless their presence is absolutely required for the care of the sick. Remaining within this area does not seem to add to the danger of an attack, while removal after the first forty-eight hours of sickness is often fatal, and, on the score of humanity, should only be tolerated under very exceptional circumstances. The removal of the sick from an infected area with the idea that in this way the disease may be gotten rid of is a fatal error which has repeatedly been made, and invariably with the same result. The locality is none the less infected because the sick have been removed, and the danger to unprotected persons remaining in it is not diminished by such removal.

All experience shows that the opposite procedure is the only sure method of checking the progress of an epidemic. Remove the well from infected areas, disinfect their clothing and personal effects, and keep them under observation for a sufficient time to

insure the safety of other communities; while the sick are cared for as far as practicable by nurses and physicians who are protected by a previous attack of the disease or by acclimatization in a place where it is endemic.

Depopulation of infected areas, with the exception of those persons required to take care of the sick, should be compulsory, and, therefore, at the expense of the general government—for if in the interest of the public health we force people to leave their homes, it is evident that we are under an obligation to take care of them during this enforced absence.

What we have said relates to the depopulation of infected localities only. The general depopulation of a city in which one or more infected localities have been developed is another matter. We would not attempt to depopulate Baltimore or Philadelphia because one or more foci of infection had been established, but we would attempt to isolate each focus. This is the place for a sanitary cordon, not to keep well people shut up in a death trap to protect others, but to keep foolhardy persons from entering the dangerous area. To attempt to shut in the whole population of the town is preposterous. On the other hand, they should be encouraged and assisted in removing to a place of safety, while this can be done without endangering other communities—*i. e.*, while the infected area is still restricted to one or more localities of limited extent; and this without any unnecessary restrictions or detention. The barbarous and unreasoning shotgun quarantine of their neighbors should not stand in the way of their exodus; they have as much right to make a sortie with shotguns in their hands to save their lives as the others have to protect themselves from infection.

Evidently here the strong arm of a superior authority is required, not only to prevent the extension of an epidemic, and to secure the rights of individuals under all circumstances, but to save us from disgrace in the eyes of enlightened people in other parts of the world.

LABORATORIES FOR INSTRUCTION IN PRACTICAL HYGIENE.

THERE are not less than six European institutes for the practical teaching of sanitation, that of Pettenkoffer, of Munich, being the earliest; Berlin, Leipzig, Göttingen, Amsterdam, and Buda-Pesth following. London has its College of State Medicine, with a museum, under the direction of Sir Joseph

Fayrer, begun this year. Wurzberg, as we recently announced, has the promise of an institute of hygiene under Prof. Lehmann. Prof. Proust, of the Paris Faculty of Medicine, is at present engaged upon a laboratory and museum specifically designed and devoted to practical sanitary instruction.

The first American university to take this department of tuition seriously in hand will, without doubt, be Columbia College, New York, where steps have been taken to locate in its School of Mines this added study. It is true that a sanitary museum has been begun at Washington, in the Department of the Navy, but it has not yet been made available for teaching purposes.

AN Intercolonial Medical Congress will assemble in Melbourne, in January next, under the presidency of Mr. T. N. Fitzgerald. About 500 medical men will meet in conference, including the presidents of the various medical associations throughout Australasia, the medical advisers of the different Governments, the inspectors of asylums in all the colonies, the professors and lecturers in the several medical schools, and a large number of the leading members of the profession. After the inaugural meeting, to be held on January 7th, the Congress will meet in nine or more different sections. Prof. H. B. Allen, of the University of Melbourne, is Secretary of the General Committee.

THE meeting of the Southern Surgical and Gynecological Association was not held in Birmingham on the 11th, 12th, and 13th of September, as announced, but has been postponed till the first Tuesday in December, owing to the quarantine against yellow fever.

ACTS of heroism in medical life are so frequent and appear to be so natural a part of it that they are not chronicled as often as they should be. One such deed, however, recently found its way into the *British Medical Journal*, where it is mentioned as an illustration of the self-sacrifice of medical men in behalf of suffering humanity. It is the case of a surgeon in the British army named Landon. Mortally wounded himself, and with the grasp of death rapidly closing down on him, he heard a wounded soldier crying out from the sharp pain of his hurt. Forgetful of self, he crept with difficulty to where the man lay and gave him a hypodermic injection of morphia to lessen his suffering and, having given it, lay down and died by the side of the soldier.

REVIEWS.

THE PHYSICIAN'S BEDSIDE RECORD. By GIDEON C. SEGUR, M.D. Hartford, Conn.: The Plimpton Manufacturing Co., 1888.

THIS record is designed for use in a single case. It contains a page for preliminary history; twenty-eight pages for the record of as many days' observations, ruled with spaces for pulse, temperature, respiration, medicine, notes of the nurse, and the physician's orders and directions; pages for the personal notes of the physician, the whole concluding with a chart for pulse, temperature, and respiration. It is of convenient size for the pocket, bound neatly and cheaply, with spaces on the cover for the data of value for future reference.

The peculiarity of the record is that it includes the observations of the physician and nurse upon a given case, in convenient shape for filing and reference. It seems, to us, of practical value, and likely to prove a welcome addition to the physician as a handy method for making and preserving notes of his private cases.

THE DISORDERS OF MENSTRUATION. By EDWARD W. JENKS, M.D. 12mo. pp. 120. Detroit: Geo. S. Davis, 1888.

THIS is one of "The Physicians' Leisure Library," a series of short, practical treatises addressed to practitioners. In the present volume Dr. Jenks has given a fair résumé of the modern treatment of disordered menstruation. The limits of his book forbade discussions of doubtful points, and the introduction of a thorough survey of the pathology of the affections described. Nor can the book claim original methods of treatment. The practice of the average American gynecologist is, however, fairly described; formulæ and illustrations sufficient to bring clearly before the mind the instruments and drugs used are inserted; and the book may be read in the scattered moments of a physician's leisure with profit and interest.

SOCIETY PROCEEDINGS.

AMERICAN SURGICAL ASSOCIATION.

Annual Meeting,

Held in Washington, September 18, 19, and 20, 1888.

(Concluded from page 338.)

WEDNESDAY, SEPTEMBER 19TH.

MORNING SESSION.

DR. HUNTER MC GUIRE, of Richmond, read a paper on THE FORMATION OF AN ARTIFICIAL URETHRA FOR PROSTATIC OBSTRUCTION.

It has been his lot to meet with a number of cases of hypertrophy of the prostate gland, which produced more or less obstruction to the passage of urine. These are conveniently divided into three classes.

1. Cases in which the obstruction was due to temporary congestion of an already enlarged gland, which yielded to the ordinary treatment, and did not return.

2. A class of cases in which the obstruction to the passage of urine was permanent but not great. Attention to the general health, the occasional introduction of the catheter, and washing out the bladder, were all that the

cases required. These cases are, however, never free from danger from exposure, etc., and gradual enlargement may go on, and bring about the condition met with in the third class.

3. In these cases the obstruction is great and fixed, micturition is frequent and difficult, perhaps impossible without the aid of the catheter. The introduction of the instrument grows more and more difficult, offensive residuum urine is always present, and the general health suffers greatly. Cystitis, localized or general, is a painful and pronounced symptom. Violent tenesmus of the bladder, provoked by the obstruction, injures the vesical ends of the ureter, possibly a reflux of stale urine is driven into these canals, and ureteritis follows, then pyelitis, and pyelonephrosis, from which the patient dies.

The paper was devoted to a consideration of surgical interference in the third class of cases. He was led to resort to the measures described from the following circumstances: During the past eight months, four cases of stone in the male required the suprapubic operation. Two because of organic stricture; one because of the large size and hardness of the two the bladder contained; the fourth, because the stone was large and hard, and the patient too anæmic to bear the shock and loss of blood which often accompany section through the rectum.

In one of the cases of stricture, in a man sixty-five years of age, the patient had, two years before coming under observation, a second cause of obstruction. A well-organized stricture was found in the membranous portion of the urethra. Prostate was enlarged, more marked on the left side. Urine showed no evidence of renal disease. An oxalate calculus, three-fourths of an inch in diameter, was also recognized. The high operation for stone was performed. The bladder walls were found thick and unyielding, and contracted. The left side of the gland jutted into the bladder one and one-half inches further than on the right side. The middle lobe was of the size of the thumb, and almost completely closed the urethra. It was decided to retain a fistulous opening, through which urination could take place. This tract was two and half inches long, and extended upward and forward. In its passive state it was closed by the pressure of the parts through which it passed. When the bladder became full and contracted, the urine was forced through the fistulous tract. The patient can now retain water for two or three hours, and has voluntary power both to retain and expel urine.

Case 2 was a man sixty-nine years of age, who had been cut for stone in 1881. In 1883 Dr. McGuire found the prostate enlarged and cystitis present. The patient was given a gum catheter, and shown how to use it. In 1886 electrolysis was employed, without success, in trying to reduce the size of the prostate. July 4, 1888, an operation similar to that performed in the first case was done, with equally good results. At times he is able to retain urine for six hours. He never has any desire to empty the bladder, no matter how full the organ is.

Mode of operation.—The night before the operation the bowels are opened. On the day of operation fifteen to twenty grains of quinine are administered. Antiseptic precautions are adopted throughout. The bladder is washed out with a weak solution of carbolic acid in hot water. An empty gum bag, capable of holding twelve ounces, is passed into the rectum. About twelve ounces of water are then injected into it, which pushes the bladder over

the pubes. The bladder is next filled with a hot solution of carbolic acid. The use of force should be avoided. The penis is tied with a piece of rubber tube to prevent escape of fluid. A vertical incision is next made, beginning three or four inches above the pubes, and extending to the symphysis; this extends to the linea alba. The incision in the latter structure should be from three-fourths to one inch shorter than through the skin. When the transversalis fascia is reached, it should be divided, but not for more than two inches, but should reach to the pubic bone. The fat and cellular tissues between the transversalis fascia and bladder are separated with the handle of the knife. This tissue should be disturbed no more than is necessary. The bladder is now drawn forward with a tenaculum, and opened as low down as possible. The anterior portion of the organ should be carefully explored with the finger.

Sutures should now be applied, extending down to, but not including the recti muscles. The opening left in the skin should be at the upper extremity of the wound, so that the fistula will be oblique, and from two and a half to three and a half inches in length. A catheter is passed through this opening. If the catheter causes annoyance, it may be at once removed; otherwise it is better to allow it to remain a few hours. The dressing consists of a pledget of absorbent cotton, changed as often as necessary. In none of his operations has he met with the peritoneum.

In the after-treatment it is important to keep the urine acid, for acid urine is aseptic. In operations in these cases and in the high operation for stone the amount of blood lost has not exceeded two drachms.

DR. J. H. PACKARD, of Philadelphia, read a paper on

SUPRA-PUBIC CYSTOTOMY,

supplementary to one on the same subject read by him at the last meeting, and was intended to correct an accidental omission of the views of Sir Henry Thompson. These were now considered, extensive quotations from the works of this author being given. Two cases were reported, in one of which the operation was performed for the removal of a portion of silver catheter broken off in the bladder; and in the other for the removal of a piece of rubber catheter, said to have been broken off several months previously. In this case a stone weighing 571 grains was removed, in the interior of which was found the foreign body.

DR. S. W. GROSS, of Philadelphia, thought that Dr. McGuire was to be congratulated on having introduced a new operation based upon the mechanism of the bladder and the physiology of micturition; the formation of an artificial urethra in a new position. The various operations which had been performed for the relief of prostatic obstructions were next referred to; the operations of Harrison, Mercier, Bartinini, and McGill were considered.

DR. WILLIAM T. BRIGGS, of Nashville, thought that perhaps in the cases reported by Dr. McGuire a better result might have been obtained by the lateral lithotomy, provided the stone was not too large to be removed by that route, for he had noted that after incision into the prostate the gland diminished in size, and after the wound had healed a catheter could be passed in cases in which its use was before impossible. The perineal operation allows of freer drainage. Under some circumstances

the supra-pubic operation is a valuable one. This is especially the case when the stone is so large that its removal through the perineum is liable to produce serious injury of the soft parts. It is, however, often possible, through an incision in the perineum, so to break the stone as to prevent its removal. Every case should be studied by itself; in some, one operation is the best; in others, another is most suitable. All the circumstances of the case must be taken into consideration.

MR. REGINALD HARRISON, of Liverpool, said that there are two general methods of relieving obstructions due to enlarged prostate, one by attacking the gland through the bladder; and the other through the perineum. In his operation he makes a median or a lateral incision through the perineum, according to circumstances. The obstructing prostate is next divided with considerable freedom, and a drainage tube of considerable size introduced. From this operation he gets good results. Perineal lithotomy is preferable to the supra-pubic operation, because the lateral incision gives sufficient room for all manipulations. It gives an ample opening for the removal of a stone of considerable dimensions. It also permits of the more or less permanent drainage which these cases require. He had, also, through a perineal opening, used the perineal lithotrite with success. All methods of operation should be remembered, and each employed in those cases in which it seems indicated.

PROF. ANNANDALE, of Edinburgh, had come to the conclusion that if an operation is to be performed for the relief of prostatic obstructions, the perineal operation is the best. This allows of examination of the bladder, permits drainage, and probably causes a diminution of the hypertrophy. It enables one to remove occasionally a portion of the enlarged prostate, when this assumes a pedunculated form. The speaker exhibited a rubber tube which he had found useful in cases of Harrison's operation, when a permanent cure is required.

DR. A. VANDER VEER, of Albany, said that the testimony presented in his paper last year was in favor of the perineal opening so far as drainage was concerned. He had employed Harrison's operation in a number of cases, and the results had impressed him favorably.

MR. ARTHUR E. DURHAM, of London, emphatically endorsed what had been said in regard to operations for stone that no one operation is applicable to all cases. It is a great mistake to be sure of one method, especially in surgery. When we hear a man say that he treats all his cases of fracture in such a way, all his cases of stone in such a way, and all his cases of prostatic disease in such a way, we may be sure that such a man has a very small practice and experience, or else he is a very great fool. In cases in which stone in the bladder is complicated with enlarged prostate, the perineal incision seemed to him to be better than the supra-pubic. He described a method of performing perineal lithotomy which is performed with satisfaction at Guy's Hospital. This consists in the use of a straight staff, the groove extending to within one-third of an inch of its extremity. A knife with a straight back is passed through the perineum until it reaches the groove, then carried along the groove to its extremity, and the point of the knife being held in close contact with the staff, the two are carried forward into the bladder, thus avoiding many of the risks of the operation as ordinarily performed. In concluding, he

referred to the great improvement of the Bigelow operation over the old method of crushing for stone. He had no doubt that this method renders both lateral and supra-pubic operations much more rare than they have been in the past.

DR. HINGSTON, of Montreal, believed that the supra-pubic operation was one to be performed only in exceptional cases. These he classified as follows: 1. In those cases of stricture in which obstruction cannot be overcome in time to relieve the patient of great suffering. 2. In cases of prostatic obstruction. 3. In cases of tumors of the bladder which would interfere with the lateral operation. 4. In cases in which the stone is too hard or too large to be removed either by lithotomy or by lateral lithotomy. He had removed, without injury to the soft parts, a stone weighing five ounces and five drachms.

SIR WILLIAM MACCORMAC, of London, had performed the operation of supra-cystotomy occasionally. He had never seen any untoward consequences, and the operation seems to be devoid of all risk. He did not consider that drainage was necessary after this operation. The bladder empties itself freely and the drainage tube is a source of irritation.

DR. HUNTER MC GUIRE said that the only object of his paper was to describe the two cases in which he had made an artificial urethra to relieve prostatic obstruction. The various operations referred to were not applicable to all cases, while the formation of an artificial urethra could be done in all cases. He was surprised to hear that supra-pubic cystotomy was considered dangerous. It had the advantage of avoiding some of the unpleasant consequences of the lateral operation, such as dribbling of urine and impotence.

DR. J. H. PACKARD did not want to be considered as an advocate of supra-pubic cystotomy. It had, however, been shown that the danger attributed to this operation did not exist. He considered that the operation was a valuable resource in certain cases. After this operation he had noted diminution in the size of the enlarged prostate. This he attributed to the rest afforded the bladder. It will take place in whatever way the rest may be obtained.

THE PRESIDENT, DR. D. HAYES AGNEW, being called upon, said the ground had been so thoroughly covered that there was little to be added. He agreed with those who held that no single operation was applicable to all cases. The supra-pubic operation may be appropriate in certain cases, while in others the perineal operation is the proper one. In order to avoid the unpleasant consequences which occasionally follow the perineal operation in children where the prostate is small, he avoids the introduction of the finger into the bladder and removes the stone with forceps not much larger than the staff.

While there may be no damage done in the supra-pubic operation in skilled hands, yet with the inexperienced operator there will be risk of opening the peritoneal cavity. He thought that a number of cases had been reported of rupture of the bladder following injection of the organ after dilatation of the rectum with the rubber bag.

The following were elected

OFFICERS FOR THE ENSUING YEAR:

President.—Dr. D. W. Cheever, of Boston.

Vice-Presidents.—Dr. T. G. Richardson, of New Orleans, and Dr. John B. Roberts, of Philadelphia.

Secretary.—Dr. J. R. Weist, of Richmond, Ind.

Treasurer.—Dr. P. S. Conner, of Cincinnati.

Recorder.—Dr. J. Ewing Mears, of Philadelphia.

Members of Council.—Dr. W. F. Peck, of Davenport, and Dr. S. W. Gross, of Philadelphia.

The next meeting to be held beginning the second Tuesday of May, 1889, in Washington.

Chairman of Committee of Arrangements.—Dr. J. S. Billings.

AFTERNOON SESSION.

DR. W. T. BULL, of New York, read a paper on

THE SURGICAL MANAGEMENT OF TYPHILITIS AND PERITYPHILITIS.

He reported seventeen cases operated on by himself. These he divided into three groups: the first, including ten cases in which abscess was opened by incision without opening the general peritoneal cavity at periods varying from seven days up to six weeks from the beginning of the attack. All of these cases recovered.

The second group included six cases in which laparotomy was performed seven times for supposed perforation (one patient being operated on twice). The earliest operation was at the expiration of thirty-six hours, the latest on the fifth day. Death occurred in two of these cases, one from incomplete operation and the other from imperfect technique.

The third group contained but one case, but the author hoped that in the future more would be reported. In this case laparotomy was performed in the presence of threatening symptoms on the twelfth day of an attack of perityphilitis. No pus was found and no signs of recent peritonitis. The appendix was surrounded by old adhesions. The diagnosis of this class of affections was then referred to.

The operations described were laparotomy and simple incision of the abscess. Antiseptic precautions should be adopted in both. The incision for laparotomy should begin a finger-breadth above the right Poupart's ligament and extend upward four inches. The peritoneum should be divided at the lower angle of the wound. Adhesions are then separated, and any pus found, evacuated. The intestines should not be allowed to escape through the wound; the region behind the cæcum must be carefully examined. If there is perforation or gangrene of the appendix, it should be removed at its junction with the cæcum. After thorough washing out of the cavity a drainage tube should be introduced, passing to the bottom of the iliac fossa.

For opening an abscess, the incision should start from the point before mentioned and continue either parallel with the ligament or more vertical according to the position of the abscess. Incision may be required above and parallel with the crest of the ileum, if the maximum of tumefaction is found there.

A brief report of the cases operated upon was then given and the following conclusions presented:

Our present knowledge justifies the statement that both the cæcum and appendix may be the starting-point of an inflammation spreading to the peritoneum or to the peritoneum and cellular tissue of the iliac fossa constituting a complicated lesion which for convenience' sake we may call "perityphilitis." This may be in its clinical course

resolving or suppurative; each marked by definite symptoms in some cases, in others difficult to recognize.

Needle exploration is a justifiable and desirable method of diagnosis, though attended by some risks. These may be reduced to a minimum if care be taken to reserve the practice for cases in which the symptoms have lasted several days and in which a distinct indication, "tumor," can be made out.

Suppurative perityphlitis may be a spreading or limited (circumscribed) perityphlitis. Both begin with the same set of symptoms, and it is important to discriminate between them in the first twenty-four or forty-eight hours, or even on the third day.

The presence of any of the local or constitutional signs of general peritonitis justifies the diagnosis of a spreading or generalization, and calls for the performance of laparotomy and the repair of the lesions found.

The absence of these signs or their strict localization warrants delay of a varying length. Any time after a week the abscess may be opened by an incision which must reach the pus whether it be extraperitoneal or intra-peritoneal.

In doubtful cases the risk of the operation is less than the risk of the disease.

The propriety of exploring and removing the appendix in recurring cases must still remain *sub judice*.

DR. J. EWING MEARS, of Philadelphia, then read a paper on

THE PROPRIETY OF SURGICAL INTERFERENCE IN PERFORATING TYPHOID ULCER.

The present state of our knowledge and our largely accumulated experience have enabled us to define with a degree of exactness the limits of surgical interference in certain affections of the abdominal organs. The researches of Senn have shown that complete extirpation of the pancreas is invariably followed by death, while partial excision is a feasible operation. We are also able to define the limits of operation in affections of the spleen and kidneys. We may venture to approach the discussion of operative interference in perforating typhoid ulcer with the feeling that here we may be compelled to define a limit to the employment of surgical measures, not without regret at our inability to overcome the barriers which oppose success, but with a desire to maintain always the good repute of surgical science and art.

A clear distinction must be made between the widely different conditions which precede and follow perforation in typhoid ulcer and in ulcerations of the intestinal canal due to other causes. In typhoid fever, in addition to the intestinal lesions, there is a general degenerative process involving all the important organs. In traumatism the general condition of the patient may be good. In inflammatory conditions, while the general system may be profoundly impressed, the lesion may be regarded as local in its nature. In diseases of a chronic character, the system has accommodated itself to the impression made by the morbid affection, and the degenerative changes which may occur are not usually general in character.

The symptoms are usually quite distinctive. Death, as a rule, occurs on the second or third day; rarely the fatal result may be postponed two or three weeks, and instances are recorded in which recovery has taken

place, adhesion having occurred between the edges of the perforation and adjacent parts.

A careful search of current medical literature reveals but four cases of surgical interference in perforating typhoid ulcer, in all of which a fatal result occurred. The reports of these four cases were given in detail. These cases were operated on by the following surgeons, Prof. Kussmaul, of Strasburg, Mr. T. H. Bartlett, of Birmingham, Dr. R. B. Bontecou, of Troy, N. Y., and Dr. T. G. Morton, of Philadelphia. In Prof. Kussmaul's case the disease was severe and perforation occurred early when the infective process was at its greatest height and the vital forces at the lowest point. In Dr. Morton's case the disease was mild, "a walking case." In both of these cases the shock consequent upon the perforation was prompt and profound. In the first case operation was performed within a few hours, but death without reaction from shock occurred in eleven hours. In Dr. Morton's case operation was resorted to twenty hours after the accident. Six hours after operation, the patient sank into a collapsed condition and died. The operations in these cases were performed by surgeons of experience, under strict antiseptic precautions and within a reasonably short time after the accident. We must, therefore, look for the cause of failure in the systemic condition; the degenerated and devitalized condition of the organs and tissues caused by the infectious process in active progress, utterly deprived of the power to resist the shock of operation; or in the condition of the structures beginning to recover from the effect of the poison in milder form, extremely sensitive to any rude impressions and wanting in tone and power of resistance. It is in the latter conditions alone that the surgeons may hope to achieve success by surgical interference, and then only when such methods are adopted as will reduce to the lowest point shock of operation.

The following propositions and suggestions were offered:

1. Surgical interference is not justifiable and should not be instituted in cases of typhoid fever in which perforation occurs when the infective process is at its height.

2. In mild cases of the disease in which the pyrexia has not been of high grade, and in which perforation occurs at the end of the third week, or later when the stage of convalescence is fully pronounced, laparotomy may be performed. Surgical interference in cases of this character is advocated with the hope that if the method of operation suggested by Lücke,—laparotomy with the creation of an artificial anus—be adhered to, success may be attained.

3. Rapidity of operation will be an essential factor in the achievement of success, through which prolonged exposure of the cavity will be avoided and shock greatly lessened.

DR. B. A. WATSON, of Jersey City, said that in cases in which perforation occurred the sooner operation is performed the better. He considered that it is safer to make an exploratory incision than to use the needle.

In regard to the paper of Dr. Mears, it covered the ground completely. In those severe cases of typhoid fever in which perforation occurs and life is about ebbing away, it would be folly to resort to operation; but in mild cases in which perforation occurs the operation should be done early.

DR. R. B. BONTECOU, of Troy, N. Y., had performed the operation in one case of perforation in the third week of typhoid fever; the patient, however, died. He thought that it would succeed in some cases, as in those in which perforation follows imprudence during convalescence.

DR. C. B. NANCREDE thought that the proper place for incision was two inches to the right of the anterior superior iliac spine. He had operated in two cases; in the first there was no pus, but three or four perforations were found. This patient recovered. The second case was that of a child operated on four days ago. The patient had done well since the operation.

DR. GORDON, of Portland, referred to the absence of symptoms met with in these cases, and cited a case in which the symptoms were not distinct, but in which a pint of pus was found, with general peritonitis and perforation of the appendix. In this case an incision on the right side would not have reached the pus.

DR. D. W. CHEEVER, of Boston, reported a case in which strangulation of an old hernia occurred in the third week of typhoid fever, the patient not being seriously ill. A simple incision through the sac was made and the bowel replaced, but the patient did not rally from the shock.

DR. W. H. CARMALT, of New Haven, referred to a case which had come under his observation with symptoms of intestinal obstruction. Operation was suggested but refused. The patient died and the autopsy showed perforation of the appendix and extravasation of fecal matter. The appendix was attached deep down in the pelvis, where there was a small collection of pus. This was reached only with the greatest difficulty and after turning the intestines out of the abdominal cavity. This abscess was inaccessible to any of the ordinary methods of operation. The careful exploration of the rectum in this case failed to reveal any sign of disease.

DR. JOSEPH RANSOHOFF, of Cincinnati, thought that the general impression that perityphlitis is necessarily associated with perforation, was an error. There are two classes of cases. In one there is a distinct tumor and in these early operation is by no means indicated. In these cases adhesions have formed, and there is a natural tendency to cure. In these cases the abscess finally perforates the abdominal wall or is relieved by incision. The second class is that in which the symptoms of perforation develop suddenly. In these cases the incision should be median.

DR. T. F. PREWITT, of St. Louis, thought that there must be many cases of inflammation in the region of the cæcum that never suppurate. He recalled a number of these cases, two of which had died, one from perforation, and the other, an old man, from exhaustion incident to an intestinal affection. In almost all of these cases the patients had had three or four previous attacks.

DR. REGINALD H. FITZ, of Boston, held that the appendix was the seat of disease in the great majority of cases. The symptoms usually enable the physician to make a correct diagnosis. The use of the exploring needle was not considered advisable. The cæcum can always be readily found by remembering that it is attached to the colon.

DR. GEORGE W. GAY, of Boston, remarked that in the cases in which he had operated, recovery had followed in those cases in which offensive pus had been evacuated,

while in those in which he had found only serum and flakes of lymph, a fatal result followed operation.

THURSDAY, SEPTEMBER 20TH.—MORNING SESSION.

DR. GEORGE W. GAY, of Boston, read a paper on

THE COMPARATIVE MERITS OF TRACHEOTOMY AND INTUBATION IN THE TREATMENT OF CROUP.

Dr. O'Dwyer's method of intubing the larynx, he said, has now been before the profession in a prominent manner about three years, and it is surely gaining favor, as its merits and its limitations are being more clearly understood. The operation has its advantages and its disadvantages. It gives relief to the dyspnoea and it saves lives. The statistics of recovery vary much, as in tracheotomy. Twenty-six per cent. is a fair average after intubation. The recovery rate in 327 tracheotomies performed at the Boston City Hospital was twenty-nine per cent. In about 100 cases of intubation performed at the same institution, the rate of recovery was twenty-six per cent., showing a slightly smaller percentage than the old operation. It is not claimed that these figures and facts are conclusive. The number of intubations is, as yet, too small to settle the question. The recovery of patients under three years of age was in the same proportion after each operation, namely, twelve per cent. O'Dwyer, Brown, and Waxham save about one in four after intubation; Huber and Montgomery save one in two; Northrup and Denhard save one in five; Jenning, one in ten; Chatham, one in fifteen; and A. B. Strong, one in thirty-one. This variation of results in the experience of different operators, proves conclusively that the type of the disease determines the result to a great extent—far more, in fact, than any mode of treatment. The conclusion on this point is that the new operation saves nearly or quite as many patients as did the old.

In regard to the facility of doing intubation, it may, like tracheotomy, be easy or difficult, according to the age of the child, the conditions of the larynx, and the strength of the patient. Both operations are difficult in children under three or four years of age, and both are attended with some danger. In tracheotomy the risk lies principally in hemorrhage and collapse. In intubation, it lies in pushing membrane, etc., down in front of the tube, producing more or less complete obstruction. In very weak children, collapse may result from prolonged efforts at placing the laryngeal tubes. Under these circumstances the surgeon should choose the operation with which he is most familiar. The old operation can be done with one good assistant. Intubation requires at least two fairly good ones. Unless great care be taken, the operator's finger may be severely bitten, which, in at least one case, has resulted in death.

It is desirable to have a physician close at hand for three or four days after both operations. If the tube must be allowed to take care of itself, intubation is preferable. If ordinary care, such as a good nurse or other clever person can give, is available in cases located at a great distance from a physician who can place O'Dwyer's tube, then the old operation is better, there being less danger of fatal obstruction and the question of feeding giving less anxiety.

The weight of testimony goes to prove that it is less work to take care of intubated than of tracheotomized patients. The time occupied in caring for the tube in

the latter class is largely taken up in feeding the former class of patients.

Northrup's statistics of 107 autopsies performed at the New York Foundling Hospital, go to prove that there is no such thing as "food pneumonia," as in no instance were signs of food found in the smaller bronchi. Dr. O'Dwyer advances the opinion that the secondary lung affections, especially pneumonia, are due to retained secretions, which, owing to the presence of the tube in either operation, cannot be ejected by coughing. Others hold that this complication is due to the fact that the air enters the lungs without first being warmed and moistened by passing through the nasal chambers. The author ascribes these affections to the natural tendency of exudative processes to extend in all directions, basing the opinion upon the fact that pulmonary complications are as frequent in cases not receiving surgical treatment, run the same course, and are as fatal as in those in which operation is resorted to.

While a wound in the skin is objectionable on general principles, yet the wound of tracheotomy gives little trouble and does little harm. The diphtheritic poison gains admission to the system before the wound exists, and the course of the disease, as regards sepsis, is the same after as before the operation. In only 6 of the 327 operations at the City Hospital of Boston was diphtheria in the wound noted; 3 of these cases recovered. Both tubes may produce ulcerations in the trachea, but the result is seldom serious.

Conclusions.—1. Intubation may be tried in all cases of croup.

2. It is preferable in young children and in cases in which the tube must be left entirely to itself.

3. It may be resorted to for euthanasia, provided the operator is reasonably expert and can do it without producing collapse.

4. Tracheotomy is called for in those cases in which intubation cannot be done or in which it fails to give relief; or in which the laryngeal tube is repeatedly ejected or requires frequent removal for cleansing. It may also be required in those cases in which sufficient food cannot be given while the O'Dwyer tube is in position. It is also preferable in cases situated at a distance from a surgeon capable of introducing the laryngeal tube.

5. The tracheotomy instruments should always be at hand in intubation in cases of emergency.

DR. H. H. MUDD, of St. Louis, said that intubation had been done as a precautionary measure in many cases in which tracheotomy would not have been thought of. Some of the good results of intubation are to be attributed to this fact. In most of his cases of intubation, in which the patient survived, he had found it necessary to resort to tracheotomy, patients have recovered after tracheotomy in whom intubation had proved unsuccessful.

PROF. THOMAS ANNANDALE, of Edinburgh, called attention to the value of the introduction of a tube through the glottis in cases of operations about the throat in which there was risk of suffocation or of hemorrhage into the trachea.

DR. HUBER, of New York, said that he had performed intubation in 94 cases, with recovery in 37. He does not operate early. He considers the internal use of bichloride of mercury as of equal importance as the intubation. There is an occasional advantage in using a small tube,

with the expectation that it will be coughed out, and with it a portion of the membrane, and affording an opportunity for feeding while the tube is out.

DR. T. F. PREWITT, of St. Louis, said that in one case of diphtheritic paralysis he had, in order to avoid passage of fluid into the larynx, passed a catheter through the glottis and plugged the larynx with a sponge. This permitted the fluid to go into the esophagus without risk of entering the trachea. After feeding, the sponge and tube were removed.

DR. D. W. CHEEVER, of Boston, advocated the disuse of anæsthetics in cases of tracheotomy, provided proper assistants can be secured. The operation is not accompanied by much pain. By avoiding the anæsthetic many of the risks of the operation are avoided.

DR. L. McLANE TIFFANY, of Baltimore, then read a paper on

PREGNANCY AND OPERATIVE SURGERY: THEIR MUTUAL RELATIONS

The following conclusions were presented: 1. Pregnancy is a physiological condition and does not contraindicate a surgical operation. 2. During pregnancy temporary strain may be exerted on some organ—*e. g.*, kidney, inducing impairment of function. 3. A surgical operation upon a pregnant woman is to be conducted so as to avoid inducing abortion, in itself a serious accident. 4. The main cause of abortion after operation is sepsis. 5. The probability of sepsis after operation is increased if the patient is suffering from disease, either temporary or chronic. 6. Abortion may result from operation—shock perhaps. 7. Hemorrhage does not seem to produce abortion. 8. Union of fracture may be retarded by pregnancy. 9. Recorded cases show that the unborn child receives no evil impress when the mother is subjected to operation. 10. When a surgical operation upon a pregnant woman is under consideration, the function of all the patient's organs must be carefully investigated and regulated. An operation then conducted antisceptically may be expected to result as though pregnancy were not present.

DR. J. EWING MEARS, of Philadelphia, thought that while pregnancy was to be regarded as a physiological process in the native woman, it would not be considered in this light in the society woman. Another important point to be considered was whether the operation required was one of expediency or of necessity. In the latter case the surgeon must do his duty let the result be what it may; but whether or not operations of expediency were to be performed on the pregnant woman was a question only to be decided by further experience.

DR. P. S. CONNER, of Cincinnati, reported a case of subcutaneous operation for ankylosis of the knee in a woman who, it was subsequently learned, was six weeks pregnant. The operation was followed by severe septic infection, but this did not interfere with the normal course of the pregnancy.

DR. WILLIAM HUNT, of Philadelphia, raised the question whether or not in the case of inevitably fatal injury to a pregnant woman, as from burns, it was justifiable to run the risk of sacrificing the mother a few days sooner, when by so doing the life of the child might be saved, or must we wait until the last breath has left the body before making the incision?

DR. R. B. BONTECOU, of Troy, reported the case of a

rupture of an umbilical hernia in a woman seven months pregnant. The intestines were out four hours. They were then cleaned and replaced. The woman recovered and a healthy child was born one month later.

DR. L. McLANE TIFFANY thought that, in the case suggested by Dr. Hunt, there could be no question as to the propriety of operation. By so doing one life may be saved.

DR. N. P. DANDRIDGE, of Cincinnati, read a paper on NERVE-STRETCHING.

The following conclusions were presented: 1. That nerve-stretching should be condemned in all forms of central disease, such as tabes, myelitis, etc. 2. That it offers little prospect of relief in tetanus. 3. That it should be regarded as a reliable method in cases of persistent neuralgia and peripheral paralysis of sensation in the extremities. 4. That stretching the facial is indicated in tic convulsif. 5. That further trial is justified in reflex epilepsy. 6. That stretching the lingual should be tried in painful affections of the tongue. 7. That resection should always be preferred to stretching in the spinal accessory and in the branches of the fifth nerve, except the lingual.

AFTERNOON SESSION.

DR. DE FOREST WILLARD, of Philadelphia, read a paper on

NEPHRECTOMY.

Case 1. Gunshot wound of kidney.—Male, mulatto, aged seventeen, was shot July 10, 1887, at such close range as to burn the clothing and skin. He was able to walk one-fourth of a mile to the hospital, and the shock was but moderate. Symptoms of internal hemorrhage steadily increased, and when seen by Dr. Willard, four hours after the injury, the signs of collapse were imminent. The ball entered just above the eleventh rib, three and one-half inches from the spinous process. There was no wound of exit. Almost pure blood was voided from the bladder, and continued to flow freely. The entire left side of the abdomen was dull on percussion, and there was every evidence that there had been an escape of intestinal contents, as well as urine and blood, into the peritoneal cavity. Abdominal incision was, therefore, chosen as best suited to arrest hemorrhage, repair injured organ, and remove clots. The bladder was found full of blood, but uninjured. Ureters, the same. The huge hæmatocele was found to be retroperitoneal, filling all the tissues in the loin, and downward into the pelvis. The left kidney was traversed by the ball from the centre of the rim to the infundibulum, and the renal artery and vein cut. Aseptic silk ligatures were applied, and the organ removed. The ball had passed behind the peritoneum without injuring other organs, and could not be found. No blood or feces were found in the peritoneal cavity. The site of the extirpation was thoroughly mopped with sublimate solution, 1:10,000, made with boiling distilled water, and the abdomen irrigated with hot distilled water. The utmost precautions were taken to prevent infection, and all the dressings were thoroughly antiseptic. The temperature during the next four days varied from 99.4° to 101.4°. About twenty ounces of slightly albuminous urine were secreted daily. The skin was kept active, and no signs of uræmia at any time made their appearance. The patient, however, died

of loss of blood, shock, and exhaustion, eighty-six hours after the injury. At the post-mortem no blood or pus was found in the peritoneal cavity, and the adhesions between the serous surfaces were very slight. There was no pus at the site of nephrectomy, and the hæmatocele was perfectly aseptic. The ball had grazed the eleventh rib, passed just below the pleura without entering it, had perforated the diaphragm, left kidney, the renal artery, and vein and sheath of the aorta just at the origin of the renal artery, being found lying directly upon the aorta. The right kidney was healthy.

In his remarks he dwelt upon the advantages of abdominal incision, in which the probabilities of other organs having been injured were so great; as hemorrhage could be arrested, perforations repaired, and escaped fluid removed. Drainage through the loin or abdomen was not advisable, provided urine had not escaped into the peritoneal cavity before the operation. The hæmatocele, if large and retro-peritoneal, could not be thoroughly removed, and should, therefore, be allowed to remain undisturbed. All fluids in the abdominal cavity should be removed.

The three primary nephrectomies for gunshot wound thus far reported, have all been done by Philadelphia surgeons. Keen (*Trans. Amer. Surg. Assn.*, vol. v. p. 193) removed the left kidney of a girl of eighteen, in whom the ball had perforated the stomach, liver, spleen, and kidney. This patient died on the fifteenth day. Price (*Trans. Penna. State Med. Society*, 1888) removed the right kidney in a girl of fourteen, in whom the liver was also perforated. His patient recovered after multiple abscess of the liver. Dr. Willard's case died on the fourth day. In none of these cases was there anuria.

Case 2. Nephrectomy for tubercular kidney.—Female, aged thirty-two, married eight years, but never pregnant. Tubercular history of ancestry uncertain. Failing in health for ten months. Seven weeks ago first noticed tumor in right side of abdomen. Has had increasing pain in this region; this is now very severe at times. Has emaciated rapidly. Temperature varying from 99° to 101° in the evening. Diarrhoea quite constant. Passes large amounts of pus in the urine. Urine, one-sixth albuminous, but contains no casts, and no distinctive cell elements. Tumor rounded in form, occupies the space from the right renal region forward to linea semilunaris, and vertically from lower margin of liver to line of anterior superior spinous process. Indistinct dulness extending into pelvis. Resonance between liver and tumor. Tumor movable.

Diagnosis uncertain as to purulent kidney or sarcoma of kidney. The size of the tumor, and its projection forward, determined the selection of the abdominal median incision. The right side of abdomen was found filled with thick sacs, giving indistinct sense of fluctuation. From it extended downward two elongated masses, one evidently a pus-filled ureter, and the other a mass extending down from the external iliac muscle, and passing under Poupart's ligament. Puncture evacuated only a few drachms of pus, and did not diminish its size. Tearing open the sac, the kidney was found riddled with multiple abscesses. The vessels and the ureter lower down were tied with silk ligatures, and the kidney removed. The abdominal cavity was irrigated with distilled water, drainage tubes inserted behind the uterus and into the site of the nephrectomy, and the wound closed with one set of

sutures. The woman was exceedingly low during the operation, but rallied, so that the temperature rose to 99°, and she became perfectly conscious. Two hours after operation she suddenly sank and died.

Post mortem showed that behind the suppurating kidney, and in a separate sac, divided from it by a wall two lines in thickness, was another pus sac; this sac was three inches wide, and the pus had worked its way down the aortic, common iliac, and iliac arteries to Poupart's ligament. If nephrectomy had been attempted, this sac might have been drained and the kidney never reached at all. No hemorrhage after operation. Death from shock; the other kidney was enlarged, but not diseased.

DR. W. W. KEEN, of Philadelphia, believed that blood exuded between the folds of the peritoneum was not a source of danger, and that it might be left without interference. If we could make out that the kidney alone was injured, the lumbar incision would be the proper one. Where there is a probability of injury of other structures, the abdominal incision is the best.

DR. JAMES McCANN, of Pittsburg, reported a case of nephrectomy for multiple abscess, in which the patient died suddenly six hours after operation.

DR. L. McLANE TIFFANY, of Baltimore, held that in simple gunshot wound of the kidney the proper plan was to drain the kidney through the lumbar region and not to perform nephrectomy.

DR. CHARLES T. PARKES, of Chicago, reported a case of gunshot injury of the abdomen, in which, in addition to a number of perforations in the bowel, the ball entered the kidney. The intestinal wounds were closed. No operation was performed on the kidney. The patient died from hemorrhage from the kidney twenty-four hours later.

DR. KEEN thought that in the condition referred to by Dr. Tiffany the proper plan was to drain, but when there is much injury of other parts, the patient will stand a better chance if the wounded kidney is removed.

DR. ROBERT F. WEIR, of New York, said: If there is simply a gunshot wound of the kidneys, the organ should be thoroughly exposed in order to ascertain the extent of the injury. Their thorough drainage should be employed, and to guard against hemorrhage the wound should be tamponed with iodoform gauze.

DR. H. H. MUDD, of St. Louis, reported a case of lacerated wound of the kidney, in which drainage was adopted. Irregular fever and loss of strength supervened, and fifty-one days after the injury the kidney was removed. The whole organ was in a state of parenchymatous nephritis.

DR. C. B. NANCREDE, of Philadelphia, had, in his paper last year, recommended that in gunshot wounds of the abdomen, involving the kidney, an attempt should be made to save the organ, when that was possible. He had also suggested packing of the kidney to prevent hemorrhage.

DR. R. N. ISHAM, of Chicago, considered hæmaturia a pathognomonic sign of injury of the kidneys. There are two forms of laceration of the kidney, those in which the capsule is involved in the injury, and those in which it is not. In the first, operation will probably be required. In the second, no operative procedure may be required.

DR. DAVID W. CHEEVER, of Boston, then read a paper on

SHOCK.

The operative surgery of our time has annulled pain, arrested hemorrhage, and averted septic absorption, but it has not prevented shock. The object of the paper was to inquire whether or not modern surgical procedure had diminished shock, wherein it fails to do so, and to suggest improvements of its defects. A simple description of the degrees of shock is, apprehension, fluttering, sweating, chilliness, pain, vertigo, nausea, faintness, convulsions, unconsciousness, and collapse. Moderate shock terminates in reaction. Severe shock is more lasting, and is a condition in which a feather turns the scale against the patient. An operation at this period causes renewed and prolonged shock. The effect of modern surgery has been to diminish primary shock, and to increase secondary shock. The time of an operation since the introduction of anæsthetics has been much prolonged. Do we realize what this prolonged cutting, pinching, and dissection mean to the nervous system? It is unphilosophical and fatal to operate in cases of primary shock before reaction has come on. The golden moment of fairly established reaction must be seized before traumatic fever sets in. This moment comes in from six to eighteen hours after the injury, or it never comes. Anæsthesia does not diminish the existing shock, but only annuls the additional shock from pain produced by cutting. If prolonged, it adds to the secondary shock. There is lowering of bodily temperature after operation under anæsthesia, even to 97° or 96°. This is due to the anæsthesia, which, if prolonged, ends in dripping sweat, to careless exposure of the patient, and largely to antiseptic irrigation, and to the application of cloths wet with antiseptic solutions around the seat of injury. Nausea frequently follows anæsthesia. This is one of the marked symptoms of severe shock. It is a most dangerous factor in preventing reaction.

In order to diminish shock: 1, wait for reaction; 2, never neglect to calm the mental shock by a cheerful word and personal presence; 3, give alcohol a quarter of an hour before anæsthesia; 4, make the anæsthesia short; 5, operate as rapidly as possible; 6, as short dressing as possible; 7, avoid chilling of the patient.

To promote reaction after operation: 1, persistently and carefully applied dry heat; 2, liquid nourishment combined with a stimulant, and a little laudanum by enema; 3, subcutaneous injection of brandy; 4, aromatic spirits of ammonia by the mouth; 5, black coffee and brandy—the stimulant *par excellence*, when it can be retained by the stomach; 6, quiet, a more than horizontal position, sleep, assurance that all is over and doing well.

Modern surgery has won three great triumphs: 1. It substitutes sleep for pain. 2. It averts secondary hemorrhage by animal ligature. 3. It prevents fermentation by germicidal applications. Can we add a fourth, by stilling the nervous system and averting secondary shock?

DR. W. W. GAY, of Boston dwelt upon the importance of preserving animal heat. He is in the habit of using a small dose of morphia hypodermatically ($\frac{1}{10}$ to $\frac{1}{12}$), before beginning a capital operation. If the operation is a severe one, the patient is not removed from his bed, and is given only a few whiffs of ether to obtund the pain of the first incision.

DR. C. B. NANCREDE is in the habit in cases in which it is doubtful whether or not the patient has recovered sufficiently to bear an operation, of employing the "ether

test." If after the administration of an anæsthetic is commenced, the pulse and the general condition improve, the patient will stand the shock of the operation.

If, however, the respirations increase in rapidity, and the pulse becomes frequent and weak, the ether is removed. These patients never react. Shock is often kept up by a crushed limb. In these cases the condition often rapidly improves when the limb is removed. In order to favor the flow of blood to the head, and to overcome the consequence of its collection in the abdominal vessels, he had employed elevation of the limb and the application of the Esmarch bandage.

DR. LANGE, of New York, thought that the influence of loss of blood in the production of shock, was underrated. He could not recall an instance of prolonged operation in which shock followed, provided extreme loss of blood was prevented. In operations in which loss of blood was apprehended, he employs large rectal injections of hot water.

DR. B. A. WATSON, of Jersey City, referred to the experiments which he had made showing the influence of ether and chloroform on temperature.

DR. DAVID PRINCE, of Jacksonville, recommended the use of small doses of morphia with tincture of digitalis hypodermatically to guard against reflexion and depression. He considered reflexion an important cause of shock. He also advised that the temperature of the part operated upon should be maintained.

DR. B. A. WATSON moved that a vote of thanks be extended Dr. C. H. Mastin, of Mobile, for his efforts in introducing and perfecting the plan of organization of the

CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS.

This motion, seconded by Dr. E. M. Moore, of Rochester, and by Dr. William H. Pancoast, of Philadelphia, was unanimously adopted.

After extending to the retiring officers a vote of thanks, the Association adjourned to meet in Washington, the second Tuesday of May, 1889.

AMERICAN GYNECOLOGICAL SOCIETY.

Thirteenth Annual Meeting,

Held in Washington, September 18, 19, and 20, 1888.

(Specially reported for THE MEDICAL NEWS.)

(Concluded from page 343.)

SEPTEMBER 18TH.—AFTERNOON SESSION.

SIR SPENCER WELLS, of London, read a paper entitled

CASES OF OVARIOTOMY PERFORMED TWICE UPON THE SAME PATIENT.

During the past three months he had twice performed ovariotomy upon subjects who had previously submitted to the same operation at his hands, one twenty-four years previously, and the other eight years previously. His entire experience with the secondary operation includes sixteen patients. The causes were various, trouble from the stump, neuroses, tumor in the other ovary, etc. Olshausen reports a case in which he had performed laparotomy five times upon the same person, the patient dying one year after the fifth operation; all of these operations were done in the course of six years. The speaker believed that if a patient recovered from an

ovariotomy in which only one ovary had been diseased, the chances that the other ovary would also become diseased were relatively few, perhaps not more than one in fifty.

DR. T. GAILLARD THOMAS, of New York, could recall six cases in which he had performed ovariotomy twice upon the same patient. In none of these had any trouble respecting the first operation been the cause for performing the second. In none of the cases did he discover any traces of a ligature upon the stump of the first operation. He differed with Sir Spencer in regard to the removal of the second ovary, and made it a rule to take it away if there were any good excuse for doing so, as it did not materially enhance the danger of the operation and effectually prevented the recurrence of ovarian disease.

DR. GOODELL, of Philadelphia, had performed the secondary operation in two cases. He agreed with Dr. Thomas as to the desirability of removing both ovaries at one operation, and especially if the patient is near or has passed the menopause.

DR. JAMES B. HUNTER, of New York, had performed the secondary operation in three cases. Unless the second ovary was decidedly diseased at the time of the first operation he did not usually remove it.

DR. HOWARD A. KELLY, of Philadelphia, referred to certain statistics in Sir Spencer Wells's book in which he had shown that of two hundred and twenty-three women upon whom ovariotomy had been performed one hundred and seventeen children had been born, only two of whom had died at birth. This might be considered an argument in favor of retaining the second ovary.

SIR SPENCER WELLS, in closing, observed that he did not consider the presence of a few enlarged follicles in an ovary sufficient evidence of disease to warrant its removal. He did not question the propriety of removing the second ovary in old women, nor in young women in whom the second ovary was diseased to any considerable extent.

DR. WILLIAM T. LUSK, of New York, read a paper upon

THE NEW CÆSAREAN SECTION.

Careful study of the questions involved in connection with the Cæsarean operation led him to the conclusion, years ago, that changes must be made in order to put the operation upon a proper basis. Such changes had been formulated by Sänger, and the speaker gave him all praise for the work which he had done. The rules of Sänger had been put to the test by obstetric surgeons and with the exception of his recommendation to excise portions of the muscular structure of the uterus these rules were generally followed. Those who belittle Sänger simply follow historic precedent in such matters; witness the experience of Sims in his efforts concerning vesico-vaginal fistula. During the past year the speaker had performed three Cæsarean sections, all resulting favorably to both mothers and children. The first case was operated upon to avoid craniotomy and had been reported at length. The second case was in a woman with advanced carcinomatous disease, and in very bad general condition, and who died sixty-two days after the operation from the cancerous disease. In the third case the patient was weak and anæmic, labor pains having begun six and a half days before her entrance into the

hospital. She was rachitic, and craniotomy would certainly have been fatal to her. On the ninth day from the operation she was taken with catarrhal bronchitis, and this was followed by double pneumonia. The child died thirty-six hours after birth from trismus. A plea was made that the Society should undertake a series of investigations having for their object the proper regulation of operations for Cæsarean section.

In justo-minor pelvis with a conjugate of not less than three and a third inches, normal delivery can usually be accomplished. Cæsarean section is indicated in cases in which craniotomy has been required in previous labors, in cases of flat pelvis with a two and a half inch conjugate, and in justo-minor pelvis with less than three and a third inches conjugate. In deciding between craniotomy and Cæsarean section it should always be considered that the mother's life is of the greater value, hence in some cases craniotomy must be the operation of election. Dohen's table of statistics giving a mortality of twenty-seven per cent. for this operation was out of date, having been prepared before the days of antiseptic surgery. The most recent statistics show a percentage in favor of craniotomy, and Leopold and others have clearly set this forth to check too great enthusiasm for Cæsarean section. The question as to the choice of operations should always be left to the patient and her friends. In cases in which the natural passages are obstructed by tumors or malignant disease it is useless to try and deliver by those avenues. In America the Cæsarean operation had thus far had only forty per cent. of recoveries. The conditions of obstruction to labor should be recognized early, and the relative chances in both operations should be carefully weighed. Thorough cleanliness and disinfection of everything which is to be concerned in the operation are cardinal points, there should be plenty of assistance at each step, it had better be done by daylight, and can generally be done more satisfactorily in a hospital than in a private dwelling. The uterus should be secured by an elastic ligature before it is incised; the suture may be of silk or silver; Leopold uses catgut. One must be certain, by auscultation before the operation, that the fetus is alive, otherwise the operation is not indicated. The incision should extend from the umbilicus to the pubes, half a dozen long ligatures should then be passed through the edges of the wound, after which the uterus is to be turned out of the abdomen at right angles to the body, and enveloped in hot towels. The uterine incision should be four to five inches long, and the placenta should be quickly detached with the fingers. The elastic ligature will effectually control all hemorrhage. Then the uterus is to be irrigated, the water being allowed to pass out through the vagina. Through the muscular tissue of the uterus eight to twelve sutures should be passed, half an inch from the edges of the wound, the peritoneum being subsequently closed with fine silk or catgut. After the abdominal wound has been closed a full dose of ergot should be given. Fluid food should be given almost as soon as the patient recovers consciousness, and there need not be much fear of vomiting. The more constant and faithful the watching during the subsequent weeks the better will be the chances of recovery. The sutures should be removed in the course of eight to fourteen days. Without the greatest care and all necessary precautions such patients are not likely to get well.

DR. HOWARD A. KELLY reported two cases of Cæsarean section, performed during the past year, one on absolute, the other on relative indication. The first patient was a dwarf, with justo-minor pelvis and two and a half inches conjugate; mother and child saved. The second was a suitable case for craniotomy, but the mother wished a living child, and elected the operation. She recovered, but the child survived only a short time.

DR. H. J. GARRIGUES, of New York, also reported two cases of Cæsarean section, the first being fatal, in a woman with kyphotic pelvis. The second was in a woman with justo-minor pelvis, and was favorable to mother and child. The speaker agreed with Dr. Lusk in the advantages of a hospital for this operation, as compared with a private dwelling, and also in the necessity for many assistants. For ligatures, he believed that silk offered many advantages over catgut, the latter being more difficult to tie, and more liable to slip. Turning out the uterus before extraction of the child, after Müller's method, was to be commended. He was unwilling to accord so great praise to Sänger's labor as did the reader of the paper. He had merely formulated what others had written, and his only original suggestion—namely, to excise portions of the muscular tissue of the uterus—was now not considered advisable. The speaker's first operation was performed before he knew of the existence of Sänger, and yet it had been recorded by the latter as a Sänger operation. Those who are entitled to most praise and gratitude in this connection are the ones who have introduced antiseptic measures, and who have given us a good method of suturing.

DR. GEORGE J. ENGELMANN, of St. Louis, thought that the results from craniotomy in Europe would be better but for the fact that patients requiring this operation are usually in very bad condition when received at the hospitals. Cæsarean section cases are usually prepared for the operation beforehand.

DR. WILLIAM M. POLK, of New York, had had two fatal cases of Cæsarean section during the past year. In the first case the woman was far advanced in extensive cancerous disease, and lived only fourteen hours after the operation. In the second case the patient had a kyphotic pelvis, with a three-inch conjugate, the operation being performed with all possible precautions, six hours after labor had begun. The only possible neglect was that the uterus was not washed out after it had been emptied of its contents. The patient died in forty-eight hours, from septic peritonitis.

DR. LUSK remarked, in conclusion, that Cæsarean section must never be considered as anything but an operation of last resort.

DR. T. GAILLARD THOMAS, of New York, read a paper entitled

THE ETIOLOGY, PATHOLOGY, AND TREATMENT OF ANTEFLEXION OF THE UTERUS.

He thought there was too great a tendency at the present time to devote excessive attention to things which were new, while conditions which had heretofore been well recognized were being overlooked. There are things still to be learned concerning these well-recognized conditions, among them being that of anteflexion, which is ignored by some teachers and writers. Four varieties were proposed in the treatment of the subject: 1st, that form in which the body alone is

bent; 2d, that in which the cervix alone is bent; 3d, that in which both body and cervix are bent and irreducible; 4th, that in which both are bent and reducible. Each form requires separate and distinct treatment. The term *congenital deformity* of the uterus was considered a bad one, and was not included in the author's classification. Deformity of the uterus did not exist at birth, but was the result of faulty development. The irreducible uterus began to be deformed about the age of ten years, as puberty approached, from various causes, and was intensified by such causes as tight-lacing and constipation, these being potent causes in bending the body or the neck, or both. Flexion may also be produced gradually as the result of poor nutrition; as Grailey Hewitt has shown, it may be caused by the pressure influence of tumors, by uterine catarrh, peritonitis, etc. He could not agree with those who considered anteflexion an insignificant condition; between the ages of fourteen and fifty years it might prove of very great significance, some of its effects being vesical irritation, gastric disorder, and various nervous troubles. The prognosis of anteflexion as regards a cure is often bad, but many cases may be greatly relieved by suitable means. Good results should not be expected if cases are treated as though the condition were not of great importance, and even cases which have been well treated frequently suffer relapse, even though the misplacement may have been corrected for months. After serious tissue changes in the organ have once taken place repair is either difficult or impossible. The method which is too commonly adopted of treating this condition with medicated tampons and ill-adjusted pessaries is very apt to prove a failure; each case is a study by itself. An attempt should first be made to replace the organ with the finger and the sound, and then, if the case is a suitable one, a pessary of proper shape and size may be adjusted. Either the Thomas, Hewitt, or Cutler pessary will be appropriate in certain cases, and it may be necessary to substitute one for another of different form from time to time. After the flexion has been overcome the speaker uses a glass intra-uterine stem with a vaginal support of hard rubber, and additional means of treatment are to be had in tonics, electricity, and an abundance of nutritious food. The pessary is usually retained six months. In severe cases of flexion of either the neck or the body dilatation should first be performed; the speaker suggested the instrument of Goodell, before the glass stem is introduced. The patient should be taught to remove the instrument herself if it causes pain. Severe cases of cervico-corporeal anteflexion should be submitted to Sims's operation of posterior section, or, if this be unavailing, the cervical portion should be amputated. The direction of the canal would thereby be much improved, dysmenorrhea would be relieved, and, in some cases, sterility would be overcome.

DR. GRAILY HEWITT, of London, opened the discussion. We should remember, he said, that anteflexion was often a long time in coming on; it developed gradually, perhaps during years, and when it was accomplished the tissues of the uterus had lost their normal power of resistance. The classification of the reader of the paper seemed to him a satisfactory one. Curability of this condition must often be very difficult if we remember the changes in density, in structure, in relations to which the tissues in question have been sub-

jected. He agreed with the reader that this condition had been too slightly regarded in certain quarters, especially as to its influence in producing stenosis, abortion, and other serious conditions or accidents, which may often be avoided if this cause is recognized and treated. In place of amputating the cervix, as suggested by the reader, he had found it useful to excise a portion of mucous membrane in the posterior vaginal wall between the posterior aspect of the cervix and the posterior fornix, draw the cervix backward, and secure it by sutures to the posterior wall, thus straightening the uterine canal.

DR. W. O. PRIESTLEY, of London, thought the diagnosis of anterior displacements was not always easy or clear. He remembered that Churchill had once said that in all his experience he had never seen a case of anteflexion. It was desirable that more complete statistics should be published concerning the frequency of certain symptoms which were believed to be common with anteflexion, and also as to the extent to which treatment of them had been effective. He believed that too much attention had been given to this subject, perhaps owing to a miscomprehension of the teachings of Grailey Hewitt. Discrimination should be made between those forms of this condition which give rise to symptoms and those which do not; and statistics would also be useful which should show the extent to which anteflexion alone caused appreciable symptoms requiring treatment.

DR. E. VAN DE WARKER, of Syracuse, N. Y., recalled the paper upon anteflexion and its treatment, which had been presented by him to the Society ten years ago, and in which he presented views identical with those in the reader's paper. The reader at that time showed a lack of sympathy with his propositions, and he was very glad that his conversion was evidenced by the paper which he had presented. The speaker had never seen a case of anteflexion with which there were no symptoms, but symptoms varied greatly in degree and intensity. Symptoms might not appear until the complete functional life of the organ began—that is, after marriage. They might also be associated with hysteria and other nervous symptoms. With the conversion of Dr. Thomas it only remained for Dr. Emmet to withdraw statements in his book concerning the iniquitous stem-pessary.

DR. H. P. C. WILSON, of Baltimore, agreed with the statement that anteflexion seldom occurred suddenly; in other words, it was a progressive condition. The most frequent of all causes was constipation, the frequency of which in women is well known. He believed that the present system of educating girls was largely at fault for many cases of this condition. This system was a forcing system, too much being crowded into too few years. Pessaries were undoubtedly of use in some cases, but the speaker had never seen any benefit derived from their use, and he had experimented with all kinds. In cases of anteversion he had seen useful results follow the use of the pessary. He was in the habit of treating anteflexion by Sims's operation of posterior section, dilating the canal after the wound had cicatrized. In nineteen out of every twenty cases of anteflexion there are associated sterility, constipation, and more or fewer nervous symptoms.

DR. BACHE McE. EMMET, of New York, agreed with the teachings of Dr. Thomas Addis Emmet that anteflexions which gave rise to no symptoms required no treatment. The cause was usually in some preexisting inflammation

and this, not the displacement, usually called for the treatment. He thought the evidence of this was seen in the fact that if the uterus were raised in the pelvis the symptoms which had been attributed to the displacement disappeared. An ordinary retroflexion pessary accomplished this end without the necessity of resorting to those which were designed for adjustment in the anterior vaginal fornix.

DR. W. GOODELL, of Philadelphia, believed that anteflexion *per se* had no symptoms except such as arose from dysmenorrhoea and sterility. He agreed with the reader in the propriety of using the intra-uterine stem in treating this condition if symptoms seemed to indicate it, but did not think such indications frequently existed. Sterile women and virgins were most likely to present symptoms in connection with anteflexion; it was also of frequent occurrence among the hysterical. For all classes of cases tonic treatment would be beneficial. The speaker never treated this condition by posterior section, his limited experience with the operation having been most unsatisfactory. He frequently practised dilatation for anteflexion and seldom used pessaries.

DR. W. GILL WYLIE, of New York, differed with his teachers, Drs. Thomas and Hewitt, regarding the mechanical theory of displacements. He regarded cases of anteflexion as illustrations of imperfect development, and treated them in accordance with that view. The means which he used were stimulating general and local treatment, dilatation, and drainage. The benefit to be derived from an intra-uterine stem was from its dilating and stimulating influence and the improvement to nutrition which it caused. Flexions might exist without symptoms in his opinion. Sims's operation was indicated for some cases, but he believed it well to omit the incision in the anterior uterine wall, cutting the posterior alone. Ball's method of dilatation combined with section of the posterior lip of the vaginal portion was the best plan of treatment of which he knew.

DR. THOMAS, in closing, admitted with Dr. Wilson that pessaries were not useful in cases in which the womb was irreducible; he had made such a statement in his paper. He was not yet convinced that Sims's operation was not good for certain cases. The object of the intra-uterine stem as a means of treating anteflexion was to produce changes in the innervation and circulation, not merely to cause distention.

WEDNESDAY, SEPTEMBER 19TH.

MORNING SESSION.

DR. THADDEUS A. REAMY, of Cincinnati, read a paper on

AMPUTATION OF THE CERVIX IN FIFTY-FIVE CASES OF CANCER.

These were all selected cases, and were operated upon between the years 1876 and 1886. Certain points in regard to this disease were accepted, among them, that its predisposing cause was not known, and that medical treatment of it was unavailing. The accumulating results of surgical treatment tended to show that, in some cases, life could be saved if they were seen sufficiently early in the history of the disease. There was nothing peculiar in the method by which these operations were performed. In some cases the peritoneal cavity was accidentally opened, but without serious result. In those in which

this accident did not occur the wound was touched with bromine. No rule was followed as to the quantity of tissue to be removed; the speaker was governed by the extent of the disease in each case, so that in some the section was made at the vaginal junction, in others it was carried to the os internum. The aim in all cases had been to cut widely, rather than deeply, with reference to the diseased tissues. In the greater number of cases it was found that the disease began in the pavement epithelium of the vaginal portion, and spread thence to the vagina with a tendency subsequently to invade the parametrium, and infect the general system, instead of working inward to the cylindrical epithelium of the uterine canal, and thence into the deeper structures. This furnished a hint to the advisability of cutting widely, rather than deeply, as was his plan. The idea of the reader's operations has been conservatism; that is, that no unnecessary tissue should be removed. For this reason the supra-vaginal amputation is preferred to vaginal hysterectomy in cases in which the disease began in the vaginal portion. It was also probable that by the former operation more of the readily infiltrated vaginal tissue would be removed than by the latter. Of the 55 tabulated cases, death had resulted from the operation in 2. During the ten years which were covered by the table there had been recurrence in 29, at periods ranging from a few months to several years from the operation. The rest had apparently been cured. To this table two other cases could be added in which operations had been done respectively nine and fifteen years ago, and in which there had been no recurrence. The diagnosis of cancer was established in most of the cases by the microscope, in the others the clinical evidences were deemed sufficient.

DR. W. H. BAKER, of Boston, opened the discussion. He referred to the useful work which was being done at the Woman's Hospital during his residence there, in connection with this disease, by Sims, with knife, scissors, and chemical cautery, and Thomas, with the actual cautery, and expressed great regret that that work should have been cut short by the decision of the governing authorities at that hospital, that cancer must not be treated there. The operation which had been described by him was a modification of Sims's as well as of Schröder's supra-vaginal excision, and consisted in amputating the vaginal portion, and then cutting out a cone of tissue from the body of the uterus with a knife, the apex of the cone being the fundus. Of the ten cases which had been reported by him as thus treated, five were still living in six to ten years from the time of the operation, another had died within a year, with no return of the disease. In the speaker's opinion this operation was preferable to total extirpation, which should be limited to cases in which the body was diseased, and in which the infiltration extended upward, rather than laterally.

DR. JOHN BYRNE, of Brooklyn, N. Y., had operated for cancer of the cervix with the galvano-cautery, many hundreds of times. His tables were not yet ready, but he could state that a large percentage of his cases had lived five, ten, or fifteen years after the operation, with no recurrence. In no case upon which he had operated had the disease ever recurred in the stump, though it might have appeared elsewhere.

DR. E. VAN DE WARKER, of Syracuse, N. Y., referred to the work which he had been doing with the chemical cautery, for cancer of the cervix. It was a method which

was available after nothing more could be done by knife or scissors. In recurrent cases, he first used the sharp curette, and then applied the chloride of zinc to the wound. He recalled a case in which seven such operations had been performed during the past six years.

DR. REAMY, in closing, said that he had been in the habit of using the chemical cautery as Dr. Van de Warker had described, and could testify to its value. The reason why many of the profession were wont to look upon cancer as always incurable, and always refused to operate for its relief, was because the cases were usually seen when a radical cure was impossible. Many could be cured if they were seen sufficiently early. The value of the supra-vaginal amputation over complete removal of the uterus, was recently recognized by John Williams in his Harveian lectures, and was recommended as sufficiently radical if an operation were indicated.

DR. ROBERT BATTEY, of Georgia, then read his

PRESIDENTIAL ADDRESS.

He referred to the formation of the Congress and the meeting in Washington which had led to a change in the place for holding their annual meeting the latter having been appointed for Boston. He had taken the responsibility of directing the change only after having obtained almost unanimous consent from the Fellows. The Society had been organized and was continued not in the interests of medical politics, but solely for the advancement of science. The plea which he made was that the Society should increase its membership. Though their number was limited to 100, they had never exceeded 58, with an average number of 51 and an average attendance of 29. Statistics were given showing various features of their work at the different meetings which had been held.

The theme for the remainder of the discourse was the basis upon which merit in discovery should rest, the view which obtained upon this subject at common law and under certain statutory restrictions, also the equitable view which should obtain upon the subject among honorable medical men, the necessity of asserting proofs, and the reasonable alternative that if proofs were not presented within a reasonable time the claim should lapse.

DR. E. C. DUDLEY, of Chicago, read a paper on

THE TECHNIQUE OF VAGINAL HYSTERECTOMY.

The most recent statistics of Leopold, Klatz, Standi, and others were read, showing the comparatively small mortality of the operation at the present time, and this was advantageously contrasted with the results which were obtained soon after the operation may be said to have had its revival. One of the most important features of the operation is a perfect haemostasis, and this is now more readily secured by means of force-pressure forceps after the method of Péan or Richelot than by any other. His own method of separating the uterus from the surrounding structures was described, nothing unique being claimed for this portion of the operation. The broad ligaments were then clamped with a sufficient number of forceps, the uterus was cut away and small bleeding points were secured with catch forceps. He thought it was well to follow Leopold, who does not turn the uterus either backward or forward, but drags it directly out. The only advantage in closing the peritoneal wound was

to prevent infection from the vagina. As the pressure forceps drag the stumps of the broad ligaments into the vagina, there is no fear of infection from them. The forceps also serve every purpose for drainage. They should be allowed to remain in position from forty-eight to seventy-two hours. Those which secure the smaller vessels could be removed in twenty-four hours. It was not thought necessary that one should be particular to remove the ovaries and tubes. A vulvar pad might be used to the exclusion of any other dressing. It seemed possible to the speaker that a combination might be made in laparotomy and vaginal incision in the removal of large carcinomatous uteri, and large myomata of the uterus, the pressure forceps securing the stumps in the vagina as in ordinary vaginal hysterectomy, the tumor itself being removed through the abdominal opening. So far as the speaker was aware, this plan had not been suggested by anyone previous to himself. He also read a personal letter from Péan in which he demonstrated his priority of use of pressure forceps for securing the stumps of the broad ligaments in the vagina.

DR. J. B. HUNTER, of New York, had operated in four cases with the broad ligament forceps, three of them being successful. He objected to the forceps devised by the reader of the paper as too weak in their grip. He preferred Richelot's instrument as modified by Polk.

DR. H. T. BYFORD, of Chicago, Ill., had used the method in question in four cases; he had not given up the use of the ligature, however, and believed it was sometimes the more appropriate.

DR. THADDEUS A. REAMY, of Cincinnati, thought that no more shock was, as a rule, experienced by a patient after vaginal hysterectomy than after ovariotomy. The forceps shown by the reader seemed weak, but if they were strong enough to prevent hemorrhage, they would also serve the useful purpose of hastening the sloughing process. The forceps were better than the ligature in the latter respect.

DR. LANE, of San Francisco, stated that he was the first one in America who performed vaginal hysterectomy. He reached his conclusions as to the feasibility of the operation after a series of dissections upon this portion of the body. He had operated fourteen times since 1877. He considered this one of the safest of the capital operations, and had found very little difficulty in controlling hemorrhage. If the broad ligaments were out of reach for the ligatures, the case might usually be considered inappropriate for operation. He had always used ligatures upon the broad ligaments, never forceps. The operation was much easier in thin than in fat women; his second operation was done in twenty minutes. His principal care was to avoid the uterus and the rectum. Of his fourteen cases, three have been permanently cured.

DR. DUDLEY, in closing, simply said that he had referred to certain steps in the operation as *easy* because they seemed easy to him while operating.

AFTERNOON SESSION.

DR. C. M. GREEN, of Boston, reported a case of RUPTURE OF THE UTERUS IN LABOR AT TERM, the child born alive, the mother subsequently having a full-term child in normal labor.

The patient in this case had a flat rachitic pelvis with

a three inch conjugate. The cause of rupture was unknown. The point was made that if a patient survived rupture of the uterus a few hours she had a fair chance of recovery. Subsequent progress would depend upon the presence or absence of hemorrhage; in the former case laparotomy should be performed. The rupture in question occurred during the patient's third labor, the occiput presenting anteriorly. After a period of three years a fourth labor took place, an eight pound child being normally delivered.

DR. T. PARVIN, of Philadelphia, thought that the great question in such cases was always that of drainage. A posterior rupture is favorable to drainage, an anterior one is not, and usually indicates laparotomy.

DR. GRAILY HEWITT, of London, read a paper on the

SEVERE VOMITING OF PREGNANCY.

As this symptom was occasionally the cause of death, the old saying that "a sick pregnancy is a safe one," could not be literally true. Whether this condition led to a fatal issue or simply be very annoying it may arise from a variety of causes, as shown by Anketan in his work published in 1865. Duncan has considered the condition as showing the common reflex form of vomiting with various grades of symptoms even proving fatal occasionally, and pernicious vomiting which may be associated with disease of the liver or other glandular organs. Lower has also made interesting contributions to the subject. Other possible causes would be emotion, alcoholism, and various displacements and disorders of the uterus, to the latter of which attention and investigation have been directed by the efforts of the reader. Of all the causes which were tabulated by the author it appeared that anteflexion most frequently stood in this position toward vomiting of pregnancy. The severer degrees, with impaction, incarceration, and induration, were, of course, much more mischievous in their effect, but in all of them the condition was usually influenced favorably by treatment. In some cases it was merely necessary to restore the organ to its proper position, in others dilatation was effective. Applications of cocaine to the cervix were occasionally helpful. In addition to the distressing symptom of vomiting there were sometimes associated pain in one side of the pelvis, sensitivity of the vagina and uterus to the touch, frequency of micturition, etc.

DR. FORDYCE BARKER, of New York, had observed that the vomiting of pregnancy was largely a matter of temperament, a peculiarity analogous to other peculiarities which individuals show. The changes in the vascular and nervous apparatuses of women during pregnancy were so decided that it was not difficult to understand why such phenomena did appear. Though anteflexion was frequently associated with this condition, the speaker could recall instances of anteflexion in which they did not coexist. The condition was frequently a neurosis.

DR. A. J. C. SKENE, of Brooklyn, agreed with Dr. Barker that the condition in question most frequently occurred with women of delicate organization. It was quite likely to coexist with endometritis especially of the corporeal variety.

DR. W. GILL WYLIE, of New York, favored treating the vomiting of pregnancy by Copeman's method of dilatation of the uterine canal, which was referred to by the reader. He would modify that method, however, by

limiting the dilatation to the cervical canal. This method had cured three-quarters of the speaker's cases.

DR. GRAILY HEWITT, in closing, thought too much stress was generally laid upon neurosis as a cause of vomiting; the term was too vague. In the treatment of simple cases rest in the horizontal position was frequently all that was necessary. The diagnosis and cause of the condition were the most essential features; the treatment became easy subsequently.

DR. WILLIAM M. POLK, of New York, read a paper on THE TREATMENT OF CHRONIC ENDOMETRITIS BY DRAINAGE WITH IODOFORM GAUZE.

The disease in question might be divided into two forms: the purulent and the hemorrhagic. It is a prominent symptom in such diseased conditions as salpingitis, retention of the secundines, stenosis of the cervical canal, etc. The hemorrhagic form may simulate, or may be the prelude to malignant disease of the uterus. In such cases as indicate the method of treatment which is recommended the uterus is large, the mucous membrane is thick, and the os internum may be patulous. The principle of the treatment is that which applies to inflamed cavities in general drainage. The essential requirement is to keep the os internum widely open, but this is not best accomplished by either hard or soft tubes. Vulliet's method is to be preferred, and in accomplishing this the uterus is first cleansed and dilated, and then packed with small strips of iodoform gauze. This is removed in twenty-four hours, and new applications are made, the treatment being continued until the mucous membrane has assumed a healthy appearance, and its secretion is normal again. This method of treatment is also efficient as a substitute for curettage, as it renders that operation unnecessary.

DR. VAN DE WARKER then read a paper on

THE DANGERS OF GALVANO-PUNCTURE IN PELVIC TUMORS.

He based his conclusions on three cases:

Case I.—M., aged twenty-three years, married. A large tumor filling the pelvis. Bipolar puncture was made, followed by chronic febrile movement, and subsequent rupture of an abscess that had developed in an abdominal extension of the tumor.

Case II.—H., aged forty-three years, married. Large irregular pelvic tumor. Galvano-puncture with negative pole, large abdominal electrode. Rapid cystiform degeneration of the tumor. Great increase of pus and discomfort.

Case III.—H., aged thirty-seven years. Solid tumor filling the pelvis. Negative galvano-puncture, shot abdominal electrode. Cystiform degeneration of the tumor without pus, with fifty-seven days of low fever, and death from exhaustion.

The author offered the following conclusions: That galvano-puncture of pelvic tumors must follow careful discrimination of the character of the mass. That in certain forms cystiform degeneration is promoted to the discomfort of the patient, if not the jeopardy of life. Tumors that appear to be solid may not be so, but have alveolar spaces of various and irregular size with intervening trabeculae of varying thickness. This condition has been regarded as either the degeneration of a pure fibroid, a fibroid cyst *de novo*, or a fibroid with disseminated lymph-spaces. Whatever may be the pathological

condition involved, the author believes that the group of tumors enumerated may prove hostile to electrolysis. We have in such instances the elements of cystiform degeneration, which is quickly intensified by the electrolytic current. The trabeculae separating the lymph-spaces become thinned by the pressure of the accumulating fluid, and as a consequence the general mass becomes greatly enlarged, and, owing to the structure of the tumor, impossible to drain.

Second. The fluid so accumulating may become purulent, and, owing to the same peculiarity of structure, be impossible to evacuate, and thus render laparotomy imperative, no matter what its difficulties.

Third. Peculiar changes may be induced in the fluid from the passage of the current, either septicæmic or ptomainic, that result in a chronic form of blood poisoning with fatal exhaustion.

Fourth. In order to render galvano-puncture of pelvic tumors safe, special diagnostic precautions must be taken. To this end he recommends exploratory puncture with careful antisepsis. If cystiform changes are already taking place, the tumor is not a suitable one for galvano-puncture.

Fifth. The absence of pus in cases following this operation with low persistent febrile reaction (Case III.) points to the exemption of bacterial infection, and the development of some other form of poison, possibly a ptomaine due to the reducing action of electrolysis upon the fluids.

DR. F. H. MARTIN, of Chicago, thought that the dangerous elements of electro-puncture might be avoided. They were usually due to improper currents, improper selection of cases, improper location for applying the current, improper antiseptic precautions, and bungling operators. It would also be desirable to use a graduated rheostat and a milliampèremeter which registers not more than 100 milliampères to each 4 square centimetres of tissue exposure. Vaginal puncture should be used, instead of abdominal, if possible, or the electrode should be passed into the cervical canal. The electrodes should be insulated, clean, and aseptic. Great care should be used in every operation. In answer to a question, he replied that he had cured 5 cases of small fibroid tumor, 5 others were symptomatically cured, and 5 more were still under observation and treatment. In an experience of 70 cases with 3000 applications of electricity he had had no deaths, and but 1 pelvic abscess, which occurred in a woman who had previously had 3 of them.

DR. T. PARVIN, of Philadelphia, thought we should ever be on our guard in the use of this means of treatment. Danger always accompanied it, and death had occurred in some cases.

THURSDAY, SEPTEMBER 20TH.

MORNING SESSION.

The following were elected

OFFICERS FOR THE ENSUING YEAR:

President.—Dr. H. P. C. Wilson, of Baltimore.

Vice-Presidents.—Drs. W. T. Lusk, of New York, and E. W. Jenks, of Detroit.

Secretary.—Dr. Joseph Tabor Johnson, of Washington.

Treasurer.—Dr. M. D. Mann, of Buffalo.

Council.—Drs. J. E. Janvrin, of New York, W. H.

Baker, of Boston, C. R. Drysdale, of Philadelphia, and Ely Van de Warker, of Syracuse.

The papers of Drs. Campbell, Sims (In Memoriam of Dr. J. Scott), Chadwick, J. Tabor Johnson, and Busey were read by title, also a paper by Dr. Alexander R. Simpson, of Edinburgh, Scotland, on *The Use of Chlorate of Potash in Obstetrics and Gynecology*.

DR. H. MARION SIMS read a paper on

THE IMPORTANCE OF THE MICROSCOPE IN THE TREATMENT OF STERILITY IN WOMEN.

Sterility, according to Sir James Simpson, occurred in every eighth marriage. The term implied that the ovum in the female was unfruitful, and was analogous to impotence with reference to the male. If a woman required treatment for sterility, the conditions pertaining to the sexual apparatus of both herself and her husband must be carefully ascertained. The examination would not be complete until the spermatozoa had been examined at various intervals after copulation, also the vaginal and cervical secretions, and the influence of each upon the other had been noted. It is not certainly known whether the ovum is fructified in the vagina, the uterus, or the tube. Analogy from certain of the lower animals would suggest that it took place in the vagina. Mechanical obstructions to impregnations in the form of displacements and diseases of the uterus and its appendages must usually be cured, or the sterility will continue. In the course of treatment for this condition, which may require months, the microscope would give valuable information, for it is not until the vaginal and uterine secretions are restored to normal conditions that the desired end could be attained.

DR. FORDYCE BARKER, of New York, referred to the question of age at which childbearing should terminate, and had never seen a woman who gave birth later than her fifty-fifth year. Late parturitions, as late as the fortieth year for the first time, had not proven, in his experience, either particularly difficult or dangerous.

DR. J. B. HUNTER, of New York, had found dilatation of the cervix with suitable local applications efficient in relieving sterility.

DR. H. P. C. WILSON, of Baltimore, had found the operation of posterior section useful in curing sterility. The cure of sterility was essentially the cure of a diseased mucous membrane.

DR. JOHNSTON, of Danville, Ky., stated that in the infantile uterus with an undeveloped mucous membrane there was absolute sterility, necessarily due to an abnormal condition of the sympathetic. Such individuals might menstruate irregularly. An examination of their secretions would not be sufficient to determine absolutely as to sterility.

DR. H. C. COE, of New York, thought that a slight constriction at the end of a Fallopian tube might suffice to produce absolute sterility, but would give rise to no symptoms.

DR. A. J. C. SKENE, of Brooklyn, inquired whether Dr. Johnston had found in the senile atrophic uterus the same histological condition which existed in the uterus of arrested development; and whether premature atrophy did not correspond anatomically with arrest of development. He had observed a changed appearance of the secretions from the uterus in arrest of

development—it looked like the sputa of pneumonia. He had always observed sterility in such cases.

DR. JOHNSTON replied that the condition of the uterus in infantile development was not the same as in senile atrophy. In the latter there is much fibrous tissue and a deficiency in the corpuscular elements; it resembled scar tissue. In the infantile uterus there was an abundance of the epithelial elements, and it was these facts that caused the difference in the secretions.

DR. ROBERT BATTEY, of Rome, Ga., observed that the time for the climacteric, which was designated as the forty-fifth year by the text-books, was not the same for all localities. In the locality in which he lived it was nearer the fiftieth than the forty-fifth year, and he had not infrequently seen it occur as late as the fifty-fifth. In his own family there had been childbearing as late as the fifty-sixth year. Sterility was due in certain cases to mechanical difficulties, which could be overcome by suitable precautions on the part of the individuals concerned.

DR. COLLETT, of South Carolina, remembered a case in which a woman gave birth to a child at the age of sixty-two years eight months.

DR. SIMS, in closing, expressed gratification that some of the gentlemen present had not yet abandoned the posterior section of the cervix for sterility. He believed that the operation was a useful one.

DR. JAMES B. HUNTER, of New York, presented a paper on

PREGNANCY AS A COMPLICATION IN PELVIC DISEASES.

Though all writers did not share the reader's opinion, he believed that pregnancy had a marked influence upon existing pelvic disease. All diseases of the external genital organs were aggravated by it, whether they were of inflammatory or neoplastic origin. The same was true of diseases of the vagina; vaginal cysts ruptured during parturition, and after parturition the posterior vaginal wall always tended to prolapse. The pressure of the gravid womb might cause injury to the bladder. A vaginal enterocele might become strangulated, as the womb enlarged. Diseased conditions of the cervix became worse during the first three months of pregnancy, and subsequently became better, though indurated tissue in the angles of a fissured os uteri was perceptible during the entire period of gestation. Malignant disease of the cervix was wont to get rapidly worse under the influence of pregnancy, and frequent pregnancies seemed to predispose to the development of malignant disease. If pregnancy occurred coincidently with a displacement, the latter would be relieved in some cases, especially if the displacement were anterior, in others an abortion would result. Inflammation of the utero-sacral ligaments sometimes followed labor. Small fibroid tumors of the uterus might undergo fatty degeneration and absorption during pregnancy, those of the intra-mural variety might give rise to hemorrhages, and soft or cystic growths might enlarge rapidly. During this period also endometritis might be aggravated and lead to tubal disease, ovaries might prolapse, cysts rupture, and benign tumors become malignant. Though all these conditions might occur, one should never advise a woman not to marry on account of pelvic disease unless the latter were quite severe, or there was good reason for believing that it would be.

DR. A. J. C. SKENE, of Brooklyn, had often observed that pregnancy had a decided influence on nutrition, weak and delicate women often becoming more robust and menstruating more freely. Chronic inflammatory conditions were sometimes benefited and sometimes made worse, and the benefit obtained more than counterbalanced the risks which pregnancy entailed. Abortion need not occur in connection with displacements if the latter were properly managed, and retroflexions would usually be found cured when labor was over and involution had taken place. Retroversions were not usually cured by this process, especially if subinvolution existed.

DR. BACHE MCE. EMMET, of New York, called attention to the fact there were certain forms of pelvic disease which were mild in their symptoms but might prove serious in their results. The quiet of pregnancy in itself was often a relief to a woman. In general it seemed to him that pelvic disease should be cured before pregnancy took place. In cases in which displacement was due to the weight of the uterus pregnancy would probably be beneficial.

DR. CAMERON, of Montreal, narrated a case in which the condition of a fibroid tumor of the uterus was decidedly modified by pregnancy, and another in which chronic inflammation of the pelvic tissue preceded pregnancy, the latter being followed by rupture of the uterus and death.

DR. GEORGE J. ENGELMANN, of St. Louis, read a paper upon the

NEW METHODS OF ELECTRO-THERAPY IN THEIR BEARING UPON GYNECOLOGICAL SURGERY.

Electricity, it was observed, had had many enthusiastic advocates, but had often been indiscriminately applied and with improper apparatus. It had been a means of relief in many cases of fibroid tumor, but the results had not always been as good as could be desired. Only the galvanic current was referred to in the author's remarks, and only in those cases in which surgery would otherwise be resorted to. It was not to be considered a substitute for surgery, except when surgery was inappropriate or was refused. The advantages of electricity were its safety, the possibility of receiving it without being confined to bed, etc. It was useful in the treatment of neoplasms and inflammations, which admitted of a healthy retrograde metamorphosis, and it did not prevent a final resort to the knife if this was deemed advisable. Such conditions as indurated exudates, chronic stenosis, intramural fibroids, caruncle, chronic metritis, etc., were indications for its use. It should be used in nervous disorders before resorting to oophorectomy. One could judge after a few applications whether it would be of any benefit. It would be better to progress slowly, avoiding electro-puncture if possible, and act with perfect safety. In tumors in which cystic degeneration had taken place, or for large collections of fluid in general, electricity was harmful, in tumors in which fatty degeneration was in progress it was beneficial.

Sub-serous tumors with long pedicles were less affected by the current than those which were closely adherent to the uterus. The reader had had no serious nor fatal results from his use of electricity; he never used abdominal puncture for the treatment of fibroids, but vaginal puncture if the tumor were penetrated at all. Care

should be used in the selection of cases which were to be treated, and those should never be treated which were beginning to disintegrate.

DR. H. P. C. WILSON, of Baltimore, thought that cases for treatment by electricity should be selected as carefully as for laparotomy. Keith and Apostoli had stated that if a patient were to be benefited at all it would be in the course of thirty sittings. Apostoli did not puncture a tumor if he could pass an electrode into the uterine canal. Accidents could happen with this as with any other means of treatment if it were improperly used.

DR. GRAILY HEWITT, of London, stated that he was still a student upon this subject, and he believed that electricity was destined to relieve much suffering. The prevailing tendency to rush into surgical operations should be restrained and safer methods like electricity employed.

DR. W. H. PARISH, of Philadelphia, thought that the best results which he had seen from the use of electricity had been in the treatment of pelvic exudates. No suppuration followed such treatment. He would like to know the extent to which electricity was useful in the treatment of pelvic abscess and whether it was of more advantage when the pus was in the cellular tissue, or when it was in the tubes.

DR. ENGELMANN, in closing, observed that Keith had said that a surgeon was almost criminal who cut a fibroid before he had tried electricity upon it. Electrical treatment heretofore had been of too crude a character, and without instruments of precision. In answer to the question concerning the value of electricity in the treatment of pelvic abscess, he would say, that if the quantity of pus were small it would be useful, and would favor absorption. If the quantity of pus were large, it would do no good, whether the pus were located in the tubes or in the cellular tissue.

AFTERNOON SESSION.

DR. MATTHEW D. MANN, of Buffalo, presented a specimen of a large and degenerated ovary, which contained a small, but well-developed placenta. This was an illustration that

OVARIAN PREGNANCY,

which had been declared impossible by some writers, did take place.

DR. JOSEPH E. JANVRIN, of New York, read a paper on

THE TREATMENT OF EXTRA-UTERINE PREGNANCY.

He took the same stand that he had already taken on several occasions during the past two or three years, that the existence of an extrauterine pregnancy is in itself an indication for laparotomy. The author's case in which fatal hemorrhage occurred, though electricity had been several times administered by competent hands, was cited as proof that electricity was not devoid of danger, and that it was not absolutely certain to stop development. Notwithstanding the statements of some high authorities, the diagnosis of ectopic gestation in the early months could frequently be made, and the prominent symptoms were given which usually attended that condition. If the condition were one of danger, it seemed rational to him that laparotomy should be performed and the sac extirpated, the same as in any other serious tubal disease,

or, in fact, any condition for which opening of the abdomen was now deemed perfectly justifiable. While he believed that the electricity would in most cases do no harm, it was not so reliable nor so radical a measure as laparotomy, and he was, therefore, in favor of that procedure as soon as possible after the diagnosis was made.

DR. H. T. HANKS, of New York, read a paper on

THE EARLY DIAGNOSIS OF TUBAL PREGNANCY AND ITS TREATMENT BY ELECTRICITY,

with a report of two successful cases. It was thought that no general law could be laid down concerning the treatment of tubal pregnancy during the early months. Some cases could be best treated by electricity, others by laparotomy, especially if there were any suspicions that rupture had occurred. Two cases of undoubted tubal pregnancy were narrated, which were treated with the galvanic current by the reader. Both resulted favorably, and the tumor in both cases rapidly grew smaller. This method of treatment was the one which was favored by most American gynecologists, if the diagnosis were made prior to the fourth month of pregnancy. Of twenty cases which had been reported during the past two years as treated by electricity, only two had been fatal, and it was not clear that electricity had been the cause of death in those cases. For those who were inexperienced in laparotomy it was much more prudent to use electricity, which required comparatively little skill, than to cut; besides, should electricity fail, laparotomy could still be resorted to. The diagnosis of tubal pregnancy must always be a matter of more or less difficulty; the differentiation between this and other small tumors of the pelvis was seldom easy. In cases in which it was clear that the fetus had died, one must be governed by circumstances in electing to do laparotomy, or to do nothing. Should a pregnancy pass the fifth month without mishap, and the mother express great desire for a living child, one must consider the propriety of allowing the pregnancy to continue until the child is viable. In general, the reader thought the following rules upon this subject could be followed:

1. If the diagnosis is made during the first four months, electricity should be used.
2. If the diagnosis is made after the fourth month, laparotomy is indicated.
3. Should serious symptoms arise at any period, immediate laparotomy is indicated.
4. If the diagnosis is not made until the fifth month, and the symptoms are not severe, it is well to wait until severe symptoms arise.
5. If the pregnancy has extended beyond the ninth month, and the fetus is dead, laparotomy should be performed for its removal.

DR. HARVEY, of Calcutta, stated that laparotomy was not yet in favor in India, for any condition, though it was done occasionally. He did not believe that laparotomy should be resorted to in extra-uterine pregnancy by inexperienced operators, and yet one was sometimes called upon to do it without much preparation, as the urgency of the case would not admit of sufficient delay to send for an experienced operator.

DR. J. C. REEVE, of Dayton, Ohio, recalled the paper which he had read before the Society five years previously, in which he reported the fourth recorded case treated in this country by electricity. Much progress in connection with this subject had been made during that

period. One point to which he called attention in regard to diagnosis, was the vascular activity which was perceptible in the tubal cyst as it was projected against the vagina. It had impressed him as a most important diagnostic symptom. He admitted that he did not feel quite satisfied that the contents of ectopic gestation would always be readily disposed of after the use of electricity, but this was only a theoretical consideration; he had no facts to support. In general, he was in favor of electricity during the first three months of gestation, but he was not prepared to say that he thought its use unattended with danger, that danger being the rupture of the cyst.

DR. GORDON, of Portland, Me., thought the records of treatment of tubal pregnancy, as given by Dr. Hanks, were quite as favorable for laparotomy as for electricity. By the former method, there had been two deaths in sixteen cases; by the latter, two in fourteen cases. If one waited for hemorrhage, or other serious symptoms, before operating, the delay might be fatal, as had occurred in a case to which a colleague had recently been called—too late to render any service. If ninety-five per cent. of cases of extra-uterine pregnancy could be diagnosed, certainly many of them should be saved by laparotomy, without exposing them to the danger of death from sudden hemorrhage on the one hand, nor to septicæmia from absorption after the foetus had been killed by electricity.

DR. JOHNSTON, of Danville, Ky., stated that ninety-nine out of every one hundred cases of tubal pregnancy had already ruptured one or more times before the attention of the physician was called to them. When pain and collapse occurred, it was evidence of rupture, and a clot or scar would be found upon the cyst, indicating the place at which this had occurred. The danger of rupture of the cyst from electricity is great. There is also great danger of subsequent sloughing and suppuration. Electricity was wrong in principle, and dangerous in practice for this condition. Even if lithopædion were formed, the patient was not safe, for sloughing might occur even in that condition. The safest method was the radical one—namely, the removal of the cyst and its contents.

DR. COLLETT, of South Carolina, narrated two cases which corroborated Dr. Johnston's statement concerning the record which each rupture made for itself upon the cyst.

DR. G. J. ENGLEMANN, of St. Louis, thought that in cases in which the diagnosis of extrauterine pregnancy was doubtful, electricity might be used, and no harm would result if there were no pregnancy. If pregnancy did exist, electricity might kill the foetus in the early stages of its development. If this agent were to be used at all, there should be greater precision than has heretofore been employed, and directions should be carefully formulated for use in the treatment of extrauterine pregnancy.

DR. H. C. COE, of New York, remarked that the diagnosis of extra-uterine pregnancy was easy in typical cases, in others it was difficult.

DR. KINLOCH, of South Carolina, thought that the superiority of electricity, or of laparotomy, as a measure of treatment, would depend upon the circumstances connected with each case. From a surgical standpoint, a radical operation was always preferable, and with reasonable skill and favorable surroundings laparotomy would seem to him the better method of treatment.

DR. A. P. DUDLEY, of New York, thought that sufficient information was not at hand to assist one in making an early diagnosis in extra-uterine pregnancy, especially a differential diagnosis. The treatment was not difficult after a diagnosis had been made. In almost all cases there was little danger in an exploratory incision, and it would be very helpful in making a diagnosis.

DR. MANN objected to the criticism of Dr. Johnston, that the specimen which he had presented as a specimen of ovarian pregnancy was a dermoid cyst. His logic, that because dermoid cysts might contain almost anything, therefore placental tissue; and that, hence, this was a dermoid cyst, was lacking in convincing power. The speaker had seen several cases in which electricity had been used for the treatment of extra-uterine pregnancy, all of them had done well, and in none of them had there been the suppuration which Dr. Johnston feared. He had also seen a patient with lithopædion who had had no bad symptoms at any time.

DR. JANVRIN referred to the cases of Drs. Price and Hawley (two) as the only three recorded cases in which primary laparotomy had been performed for extrauterine pregnancy. Of course, laparotomy was recommended only for those who were competent to perform it, others might use electricity until serious symptoms should demand skilled assistance. The case which was narrated by Dr. Harvey of ruptured tubal pregnancy operated upon by Mr. Tait was incomplete, as it did not appear that he had seen anything but blood clots and a cyst; and a tubal pregnancy was not complete without a foetus. In so far as the narration was concerned, it was only a haematocele. Dr. Johnston's statements harmonized with the speaker's belief, that the sharp pains of extra-uterine pregnancy were indicative of rupture.

DR. HANKS said that he did not exclude skilful or experienced laparotomists from operating at any period of extra-uterine pregnancy when a diagnosis had been made; but electricity could be used by the general practitioner when, perhaps, the services of a laparotomist were not available. No serious trouble had ever been reported in cases in which the fetus had been destroyed before the third month by electricity, excepting in the case of Dr. Janvrin.

ADJOURNMENT.

THE PRESIDENT then made his parting address to the Society, introducing his successor, Dr. H. P. C. Wilson, of Baltimore, who assumed the chair, and adjourned the Society until its next meeting, in Boston, on the second Tuesday in September, 1889.

AMERICAN DERMATOLOGICAL ASSOCIATION.

*Twelfth Annual Meeting,
Held at Washington, September 18, 19, and 20, 1888.*

WEDNESDAY, SEPTEMBER 19TH.

DR. J. E. GRAHAM, of Toronto, read a

REPORT OF FOUR CASES OF DERMATITIS HERPETIFORMIS.

Three of his cases were mild in character, exhibited the characteristics described by Duhring, and ended in recovery. The fourth was very severe in its manifestations, and ended fatally in spite of treatment; the case exhibited many of the lesions and symptoms of pemphigus.

DR. H. W. STELWAGON, of Philadelphia, reported
THREE CASES OF DERMATITIS HERPETIFORMIS, WITH
NOTES.

Among about 5000 cases of skin diseases he had seen but three of dermatitis herpetiformis; all conformed to Duhring's description. *Case 1* did well under arsenic and salines. *Case 2* had suffered from scarlatina; the dermatitis herpetiformis which followed, was obstinate, recurring in severe exacerbations, and not amenable to treatment. Arsenious acid was pushed to one-eighth of a grain doses, three times daily, in this case, without benefit. This patient subsequently passed to the Skin and Cancer Hospital, New York. *Case 3*, a woman, exhibited a milder form of the disease, and was improved by arsenic.

Dr. Stelwagon endorsed Duhring's description of these cases, and confirmed his description of the affection by his own observation.

DR. HYDE, of Chicago, in discussing these papers, preferred to separate simple exfoliative lesions from graver disorders. He described the case of a male patient who presented an extremely aggravated disease, bearing some resemblance to dermatitis herpetiformis, but which he considered pemphigus. The patient had blebs, large denuded patches, and extensive denudation along the back. He was placed upon a splint with an iron frame and broad supporting surfaces of cloth, on which he was immersed in the constant water bath for long intervals; he was given tonics and arsenic freely, but a fatal result followed.

DR. L. DUNCAN BULKLEY, of New York, described a case of dermatitis herpetiformis which developed diffuse sarcoma; another case died from a cerebral lesion. He regarded such cases as pemphigus, not herpes.

DR. FOX, of New York, had Dr. Stelwagon's second case under his observation. The diagnosis is difficult, as the case presents features of pemphigus and herpes also. He is inclined to question the utility of large doses of arsenic in these cases.

DR. HEITZMANN, of New York, had described a case some twelve years previous, presenting the clinical features of dermatitis herpetiformis, which proved to be pemphigus. He has seen but one case of Duhring's dermatitis herpetiformis in his experience.

DRS. GRAHAM and STELWAGON, in closing the discussion, stated that they would include under dermatitis herpetiformis a class of cases not described under other names. They would not classify skin disease on the basis of etiology.

DR. A. VAN HARLINGEN, of Philadelphia, described a case of

FILARIA MEDINENSIS.

The patient was employed in handling invoices and goods imported from the tropics. The worm developed typically in the palm of the hand, and Dr. Van Harlingen endeavored to remove it by cutting down upon it. Failing in this, he followed Tilbury Fox's advice, and gave assaftetida in free doses, with a prompt and successful result. The worm died, and shrivelled *in situ*. This parasite is frequently found in the soles of the feet of the inhabitants of the tropics, but is rare in temperate climates.

DR. HYDE, of Chicago, followed with a paper on

VEGETATIVE LESIONS CAUSED BY IODIDES, which will appear in full in an early number of THE MEDICAL NEWS.

The discussion of this paper elicited the clinical facts that potassium permanganate and bromide may cause lesions similar to those caused by iodides. A possible connection exists between diseases of the heart and kidneys and such eruptions.

THE AMERICAN CLIMATOLOGICAL
ASSOCIATION.

Fifth Annual Meeting
Held at Washington, September 18, 19, and 20, 1888.

(Specially reported for THE MEDICAL NEWS.)

TUESDAY AFTERNOON, SEPTEMBER 18TH.

THE PRESIDENT, DR. A. L. LOOMIS, of New York, called the Association to order at 2.30 P.M., and delivered

THE PRESIDENT'S ADDRESS.

(See page 345.)

DR. S. A. FISK, of Denver, then read a paper on THE CLIMATE OF COLORADO FOR PULMONARY DISEASE.

The drainage of Colorado, he said, is subterranean, which insures a dry climate; there are no bodies of water near to furnish moisture. The elevation and physical features of the country vary greatly. The soil is sandy, and the atmosphere of considerable rarity; the elevation of Colorado increases the circulation of the blood and the respiration, the cutaneous circulation being very active. The climate is especially dry, the hours of sunshine being very numerous. In the winter of 1884 and 1885 there were but 11 days out of 242 in which the sun did not shine at some time during the day. Denver has twice as much sunshine as European resorts, the sun rising at 7.30 during January. The climate is hot in summer, in the towns; in the mountains and parks it is comfortably cool. Great variations of temperature occasionally occur, as much as 80° having been observed. The winter climate is cold, but not sufficiently so to debilitate any but the very weak. Wind storms are infrequent; dust is very easily raised. The average precipitation is very little; fog is almost unknown.

He did not consider altitude a protection against germs; the crowding together of human beings gives rise to germs in any altitude. Putrefaction is, however, very slight. Colorado is fit for a permanent resort; it is a prosperous, and growing State, and patients should be encouraged to remain there.

DR. SALLY, of Colorado Springs, then read a paper describing the

PATIENTS SUITED FOR TREATMENT IN COLORADO.

The most frequent and marked effect of the climate is improved circulation, especially cutaneous; the complexion becomes reddened, and acute skin diseases are improved. With some patients the hair often falls, but returns when the circulation has become adjusted. Cardiac contractions are stronger, and dilatation may occur in weak hearts; as the patient becomes acclimated compensation is established. Cases of dilated heart are best treated elsewhere; such patients cannot exercise at an altitude. Fatty heart and valvular lesions are improved by the climate. Functional congestions generally disappear; anæmia and chlorosis are improved. Chronic pulmonary diseases do well, but croupous pneumonia is

violent, and attended by bloody expectoration; pneumonia occurs with greater facility than elsewhere. Pleurisy is ordinarily without effusion. Acute catarrhs are frequent. The phlegmatic and chlorotic do well. The climate is especially efficacious in arresting early tuberculosis. Phthisis and pleurisy developing after pneumonia, improve. When a tendency to acute catarrhs exists, the climate is contraindicated; when a patient has lung avities, but can react to the stimulus of the climate, great benefit often follows. Chronic nasal catarrh is improved. Renal disease is made worse. Colorado is a gymnasium, and intelligent activity and coöperation on the part of the patient are needed.

DR. R. G. CURTIN, of Philadelphia, then read a paper entitled

IS CLIMATE AN ETIOLOGICAL FACTOR IN GRAVES'S DISEASE?

He reported forty cases, occurring in fifteen families, most of these patients being natives of Alsace or Lorraine, and having lived in a moderately high altitude. His investigations led him to believe that intermarriage is the primary cause of this condition, favored by the disturbance of the nervous system by high altitude. Any exciting disturbance of the nervous system is known to favor the disease. He would not send such patients to high altitudes. He had seen cases go on to sudden death from heart failure.

DR. P. H. KRETZSCHMAR, of Brooklyn, then read a paper on

HEALTH RESORTS VS. INSTITUTIONS FOR THE TREATMENT OF PULMONARY CONSUMPTION.

He credited Bremer, of Germany, with the first institution for the treatment of phthisis, and considered the natural advantages for such treatment afforded by the springs of America neglected by the American profession. As there is no specific treatment for phthisis, the comprehensive treatment required can be best given in institutions. At health resorts the habits of patients are not sufficiently controlled; they are led, by association with well persons, to overtax themselves in pleasures which are innocent for the healthy. This is well shown by the mortality from phthisis at Nice, one in ten, while at the European institutions for the phthisical the rate is one in fifty. The danger of contagion from the phthisical at resorts is less than their danger. Relapses are usually caused by congestions resulting from indiscretions.

Detweiler and Trudeau have emphasized the dangers of the reckless use of mountain air. It is most important that the minutiae of life and treatment be personally regulated by the physician. Thus the cold douche, a most valuable agent, should be given under the physician's order only.

Regarding the value of alcohol in these cases, Bremer uses it sparingly, giving brandy and milk for night sweats. Detweiler uses alcohol freely, to the exclusion of antipyretics. Bremer takes the patient's temperature every two hours during the day; he employs rest in the open air for cases with fever. In marked fever an ice-bag over the heart is useful.

Dr. Kretzschmar prefers to give antifebrin grs. iij four times daily. The patients are not influenced badly by their surroundings while at sanitaria.

DR. LOOMIS agreed with the author that resorts are not liable for these cases. He has obtained his best results in the Adirondacks, because of the care given to the patients by physicians resident there. Dr. Trudeau had between 75 and 100 patients about him last winter; he has about 20 who have built cottages to remain under his care. This plan of treatment Dr. Loomis endorsed.

DR. SOLLY thought contagion and mental depression important objections to sanitaria; he thought well of cottages. Eastern physicians sometimes send patients to Colorado, telling them to abandon all medical treatment and rely on climate—a grave error. Patients need a physician's advice regarding their use of a climate as a medicinal agent.

DR. LEVICK, of Philadelphia, preferred cottages to a sanitarium, on account of the mental depression caused by the latter; he cited the great Ventnor Hospital of England as an example.

DR. KRETZSCHMAR, in conclusion, quoted the statistics of Bremer, showing 50 per cent. recoveries from the first stages of phthisis during the past year in his sanitarium. He considered contagion doubtful. Among those living in a town containing a sanitarium, at which 14,000 patients had been treated in 31 years, but 5 died of phthisis. There had been no authentic case of contagion at Davos.

WEDNESDAY, SEPTEMBER 19TH.

DR. E. L. TRUDEAU, of Saranac Lake, N. Y., reported

AN ENVIRONMENT EXPERIMENT REPEATED

which he had made upon animals inoculated with tubercle bacilli. His experiments demonstrated that the virulence of such inoculation depends largely upon the number of bacilli introduced, and the anatomical location of their introduction. Specimens exhibiting the conservative work of nature in encysting tuberculous foci were shown.

DR. COUNCILMAN, of Baltimore, remarked that bacilli may be aspirated into the lung from the bronchi; they may follow the lymphatics, or enter the bloodvessels directly, as in miliary tuberculosis. The resistance of the tissues to the invasion is shown by the formation of connective tissue around the focus; caseation occurs when this tissue breaks down; this tissue is well illustrated in the "pearly disease" of animals, bovine tuberculosis. The degrees of difference in the virulence of the tuberculous virus are not accurately known, nor the reasons for such differences.

THE REPORT OF THE COMMITTEE ON MINERAL SPRINGS was then read by the Chairman, DR. C. C. RICE, of New York.

The committee had found about 800 springs, whose nomenclature, however, was in a very disordered state. The classification of springs now attempted is on the basis of therapeutic value, the springs most useful being those but slightly impregnated with salines. Accurate chemical analyses are needed; but one-tenth of the whole number have been analyzed, and the government is ready to analyze waters sent to its laboratory. America lacks thermal springs, and investigation is needed to ascertain whether waters artificially heated are valuable in cases treated at European thermal springs. The committee proposed a plan for the selection of reliable

physicians residing at various springs, who should report their results in treatment by the waters of the springs in a systematic manner to the committee.

It was moved and seconded that the committee be continued, with power to act.

A discussion on the

THERAPEUTIC VALUE OF MINERAL WATERS

was then opened.

DR. WILLIAM PEPPER, of Philadelphia, spoke of their employment in *Gastro-hepatic Diseases*. His previous investigations had led him to believe that America is the richest of all countries in mineral springs; we lack, however, authentic analyses, and his custom in practice is to select that American water most similar to a European water of known ingredients. Simple water he regarded as valuable for its effect upon the secretion of bile, and the formation of urea, with the promotion of tissue metamorphosis. The use of mineral waters is indicated in gastric atony, catarrh, dilatation, and ulcer; in hepatic catarrh, cirrhosis, congestion, gallstones, and nervous stasis. In stomach disorders the water should be taken fasting; in hepatic disease after eating; waters should contain but a small proportion of salines. Cold water stimulates, increasing secretion and muscular action. Hot water cleanses mucous membrane, increasing secretion.

Dr. Pepper uses Carlsbad water most frequently in his practice, in varying dilution; he also employs the waters of Vichy, Wiesbaden, Aix-la-Chapelle, Schwalbach, and Apollinaris water. For the development of American springs we need analyses by the government. The diet and regimen of the patient are also important. Saline waters cannot be safely ordered without a careful adjustment of the patient's food, as when carelessly given the excretory organs may be injured. He had recently used whey as a substitute for mineral waters with good results. Dr. Marshall, of the University of Pennsylvania, had recently analyzed samples of whey for him, and found that whey contains caseine, lactic acid, milk sugar, and water, with a small amount of salines; a pint of whey contains a considerable quantity of salines. He described the case of a man aged fifty-eight, whose tissues had become extensively disorganized through excesses, who had been greatly improved by abandoning alcohol and the free use of whey with mineral waters. The slightest indiscretion in diet caused alarming symptoms. In many of these cases silver nitrate or bichloride of mercury can be given with advantage.

DR. A. H. SMITH, of New York, then read a paper on

MINERAL WATERS IN URINARY AND ARTHRITIC DISEASES.

He believes that water is never injurious to the kidney in nephritis, but pure water without salines should be used. So-called "hard" waters undoubtedly favor the formation of calculus. The great increase in nephritis of various forms during late years has resulted from the very common use of saline waters now prevalent. Statistics show that nephritis causes more deaths in New York than in London; and there is reason to believe that it is not the consumption of alcohol, as often asserted, which produces this result. In gouty contracted kidney mineral waters are especially valuable, provided they contain but little salines. Water containing a trace of

iron is valuable in these cases: such are the waters of springs in Wisconsin and Virginia. In joint diseases, waters containing alkaline carbonates are valuable, their bases combining with animal acids in the organism. Vichy is valuable in this way. The utility of thermal springs, as the Hot Springs, depends as much upon the general treatment and regimen enforced as upon the water.

DR. W. C. VAN BIBBER, of Baltimore closed the discussion upon mineral waters with a paper upon their use in *Malarial Diseases*. He described the pathological changes produced by the disease, and spoke of the value of waters increasing excretion, and thereby promoting assimilation and the effect of anti-malarial medication.

CORRESPONDENCE.

ABSCESSES IN THE PELVIC AREOLAR TISSUE.

To the Editor of THE MEDICAL NEWS,

SIR: IN THE MEDICAL NEWS of September 22d, in the generally accurate report of the proceedings of the American Gynecological Society, I am reported as stating that "abscesses in the pelvic areolar tissue . . . should not be operated upon early." In this your reporter has erred. I insisted that they should be operated upon early, for delay in operating in such cases is extremely hazardous.

I advocated, also, a method of operating in such cases, not generally resorted to, one that I have in a few instances resorted to, and that is of special value *early* in areolar pelvic abscess and where an opening *per vaginam* cannot be safely effected. In such cases I make, first, an exploratory incision in the median line to determine whether or not pyosalpinx or ovarian abscess co-exists. If I find that neither of these conditions is present, I then, with two fingers within the peritoneal cavity acting as guides, make a second incision, usually above the median portion of Poupart's ligament. I carry this incision, it may be, deep into the pelvis, keeping external to the peritoneum, until the small pus cavity is reached, I empty this of its contents, wash it out with a corrosive sublimate solution and introduce a drainage tube—usually a large rubber one. The peritoneal cavity is carefully protected during the operation. The median incision is closed and covered with an adhesive impermeable dressing.

This method of procedure I reported in the Society as one well adapted to limited purulent collections in the areolar tissue. The cases I have thus operated on have made speedy recoveries.

WILLIAM H. PARISH.

PHILADELPHIA, Sept. 22, 1888.

OPERATION FOR INGROWING TOE-NAIL WITH HYPODERMATIC INJECTION OF COCAINE.

To the Editor of THE MEDICAL NEWS,

SIR: I have just read in your issue of August 25th, page 208, Dr. F. Johnson's experience with cocaine in operating for ingrowing toe-nail. As he makes no mention of confining the cocaine anaesthesia to the toe to be operated upon by a ligature, I infer that he did not take this precaution, and hence the alarming symptoms.

In my surgical clinic at the Boston Dispensary I have operated many times upon ingrowing toe-nail under cocaine anæsthesia, but have always applied a rubber tube ligature a minute or two after injecting the cocaine. I have never met with the slightest unpleasant effect, either general or local. My method is as follows: I inject deep into the tissues a two or four per cent. solution of cocaine in three places, at each side and in the centre, then, in a minute or two, apply tightly at the root of the toe my rubber ligature. After waiting until complete local anæsthesia is obtained, I take off a thick slice of the toe on the affected side—under antiseptic precautions. This is known with us as the Cotting method.¹ The slice must be thick enough to expose the edge of the nail. With this the Cotting method stops, but in addition I remove about half of the nail on the affected side, evulsing it, and thoroughly destroy the matrix. Before removing the ligature—for there is much troublesome hemorrhage—I apply my dressing, which consists first of powdered iodoform or salve, followed by many layers of bichloride gauze, tightly bound on. Much care and time must be used in applying this dressing. After removing the ligature I have the patient wait a half hour to see if the bleeding soaks through the dressing. I then send the patient home, and do not touch the dressing—unless for cause—for a week. At the end of that time, I find the wound nicely granulating.

Under this method I have never to my knowledge had an unsuccessful case, or any accident with the cocaine. It is always in cases in which the cocaine cannot, or is not, locally confined, that the alarming systemic symptoms occur, although even in these cases it has never happened to me to meet with any accident, although I have constantly used this anæsthetic in minor operations. Still, I always have a feeling that such symptoms may occur.

EDWARD O. OTIS, M.D.,
Surgeon to the Boston Dispensary.

93 Mt. VERNON ST., BOSTON,
September 14, 1888.

NEWS ITEMS.

A Matter of Diagnosis—A suit of great interest to medical men has been brought in the courts of Rhode Island by a Mr. Larkin, proprietor of one of the hotels at Watch Hill, R. I., against Dr. Samuel O. Vanderpoel, of New York, for alleged damage to the plaintiff's business by reason of a diagnosis of scarlet fever made by the defendant in the case of a child staying at his hotel. Dr. Vanderpoel was called to see the child, diagnosed a mild case of scarlet fever, and advised that the child be removed to a cottage belonging to the proprietor, so as to be isolated from the guests. This recommendation was not complied with, and the child's nurse continued to go to the servants' dining-room. The diagnosis becoming known, a general exodus of guests took place, and the house, which contained a great many families with children, was soon nearly deserted. The damage in the suit is laid at \$12,000, though it is difficult to see on what grounds the case is to be urged. Dr. Vanderpoel's diagnosis, it is said, was confirmed by two other physicians, though it was disputed by one practitioner who saw the case in the interest of the landlord. The manner in which the notice was served upon the defendant

was particularly aggravating, the sheriff declining, it is said, the bail that was offered, and expressing his intention to lock up the doctor.

The exceedingly delicate position in which a physician is placed who is called to a case of infectious disease in a summer hotel is well illustrated in this case, but if a man is to be subject to a suit every time he makes such a diagnosis, it is time the profession knew it and protected itself. It is reported that Dr. Vanderpoel will bring a counter-suit against the hotel man for damages.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM SEPTEMBER 18 TO SEPTEMBER 24, 1888.

By direction of the Acting Secretary of War, the leave of absence granted ALFRED A. WOODHULL, *Major and Surgeon*, in S. O. 148, June 27, 1888, from this office, is extended fifteen days.—Par. 14, S. O. 218, A. G. O., September 19, 1888.

By direction of the Acting Secretary of War, ROBERT J. GIBSON, *Captain and Assistant Surgeon*, is relieved from duty at Alcatraz Island, California, and will report in person to the President of the Army Medical Examining Board, New York City, on October 16, 1888, for examination for promotion; on completion of his examination, Captain Gibson will proceed to Fort Trumbull, Connecticut, and report for duty to the commanding officer of that post, reporting by letter to the Commanding General, Division of the Atlantic.—Par. 13, S. O. 217, A. G. O., September 18, 1888.

By direction of the Acting Secretary of War, EDWARD R. MORRIS, *First Lieutenant and Assistant Surgeon*, is relieved from duty at Fort Thomas, Arizona, and will report in person to the commanding officer, Fort Shaw, Montana, for duty at that post, reporting by letter to the Commanding General, Department of Dakota.—Par. 14, S. O. 217, A. G. O., September 18, 1888.

By direction of the President, the Army Retiring Board at San Francisco, California, convened by War Department Order dated July 20, 1886, published in S. O. 168, July 22, 1886, from Headquarters of the Army, is dissolved.—Par. 1, S. O. 217, A. G. O., September 18, 1888.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF THE MEDICAL CORPS OF THE U. S. NAVY, FOR THE WEEK ENDING SEPTEMBER 22, 1888.

CABELL, A. G., *Passed Assistant Surgeon*.—Ordered to the Naval Hospital, Chelsea, Mass.

BAKER, J. W., *Passed Assistant Surgeon*.—Detached from the Naval Hospital, Chelsea, Mass., and ordered to the "Palos."

LEACH, PHILIP, *Passed Assistant Surgeon*.—Detached from the "Palos," and granted six months' leave abroad.

SIMONS, M. A., *Surgeon*.—Detached from the Naval Academy, and wait orders.

HARMON, G. E. H., *Surgeon*.—Ordered in charge of Naval Academy.

PICKRELL, GEORGE MCC., *Assistant Surgeon*.—Detached from the "New Hampshire," and ordered to the "Ossipee."

ARNOLD, W. F., *Assistant Surgeon*.—Ordered to the "New Hampshire."

HENRY, C. P., *Assistant Surgeon*.—Detached from the "Ossipee," and granted sick leave.

CORDEIRO, F. J. B., *Assistant Surgeon*.—Promoted to Passed Assistant Surgeon.

SPEAR, J. C., *Medical Inspector*.—Placed on the retired list, September 14th.

RHOADES, A. C., *Medical Inspector*.—Placed on the retired list, September 14th.

THE MEDICAL NEWS will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.

Local papers containing reports or news items should be marked. Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS should be addressed to No. 1004 Walnut Street, Philadelphia.

¹ Boston Medical and Surgical Journal, April 7, 1887, p. 324.